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CLINICAL LECTURE.

AORTIC REGURGITATION WITH ANEURISM OF THE SUBCLAVIAN ARTERY.—REMARKS ON ANEURISM OF THE AORTA.

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[Reported by William H. Morrison, M.D.]

Gentlemen: The patient before us is sixty-three years of age, and has no family history which bears upon his present disease. He had scarlet fever in early life, another fever, the name of which he does not remember, and later he had acute rheumatism, but otherwise he has been healthy. He denies having had syphilis, but admits that he has been a moderate drinker. He was admitted to the hospital, complaining of cough with expectoration of frothy mucus, with pain over the infra-axillary regions, and in the epigastrium. He was weak and exhausted, but had no subjective symptoms of disease of the blood-vessels. Physical examination, however, promptly discovered a very irregular heart and a murmur heard everywhere over the anterior portion of the thorax. His face was flushed and his breathing rapid. When I first saw him, the cough had been relieved, but auscultation easily recognized the murmur referred to. On superficial inspection of the chest, nothing unusual can be seen, but more careful examination discovers a pulsation just above the centre of the left clavicle. On close inspection, also, we notice a slight prominence in that situation. Placing my hand over the swelling, a distinct impulse is conveyed to it. These two signs—a *tumor* and an *impulse*—of themselves suggest aneurism, but there are other signs as easy of recognition. Thus there is impaired percussion-resonance over this area of usually clear percussion, and auscultation also gives us valuable signs. Placing the stethoscope over the apex of the heart, a murmur is discovered which is diastolic in time—that is, alternating with the first sound—a time when the auriculo-ventricular orifices are open and the aortic and pulmonary valves should be closed. Carrying the instrument toward the middle of the sternum, I observe that the murmur becomes louder and rougher, and louder still as the neighborhood of the aortic valves is reached. Finding this murmur at this place at our first examination, we made the diagnosis of aortic regurgitation, and thought it complete, whereas it was but partial. Placing the stethoscope over the tumor, I find the same murmur louder than at the apex, indeed quite as loud as at the base. I therefore conclude that the murmur heard over the apex of the heart is conducted from the aortic orifice, as it should be, with the regurgitating blood, but is conducted more loudly with the larger column toward the aneurismal sac. Again placing the stethoscope over the tumor, and listening a little more acutely, I find a second sound, less loud, alternating with the noisy one just described, the two sounds corresponding to the sounds of the heart. This fainter systolic sound is undoubtedly produced in the aneurismal sac, and is probably due to the blood passing over the roughened surface of the aneurismal wall. Sometimes these two sounds more closely resemble the normal

sounds of the heart, thus repeating them, as it were. More frequently but one is present—that corresponding with the first sound of the heart—than which it may be louder and more prolonged. In this instance, however, it is feebler while it is that corresponding to the second sound, which is louder, rougher, and more prolonged. This, however, has probably nothing to do with the aneurism, and is due to the aortic regurgitation; but this simulated duplication of the heart-sounds, an impulse, and the presence of a tumor constitute a triad of symptoms of aneurism unmistakable when present, while any one or all may be absent and any one simulated by some other condition. Take, for example, the murmur. In this particular case, the loudest factor of the aneurismal double sound is actually not aneurismal, but aortic in its origin. Again, a tumor may appear which is not due to aneurism; but such a mistake is less likely, because there is a great difference between a tumor due to aneurism and one dependent upon other causes, such as cancer, abscess, etc. Such a tumor is hard and unyielding, except sometimes in abscess, and non-pulsating, whereas in an aneurismal tumor the swelling is soft and there is a pulsation within the tumor. It is true that a tumor situated over a blood-vessel may exhibit an up-and-down movement due to the impulse communicated to it by the artery beneath; but such a pulsation differs from that of aneurism in that the tumor is raised *en masse*, while the aneurismal impulse is *expansile*.

A murmur or bruit is also often the result of pressure on a blood-vessel, but such a sound is apt to be soft in character, and such as you can yourself produce and hear by pressing upon the temporal artery as it runs in front of the ear. This murmur is very different in character from that produced by the vibration of the walls of the aneurism over which the blood flows. Finally, as has been said, an aneurism may exist without any murmur whatever.

Another very distinctive sign, which may also be absent, is the aneurismal thrill or tremor which is produced by the vibration of the walls of the aneurismal sac, and felt by the hands. It is noted in some cases with great ease, but is absent in this case. The thrill is a symptom which may come and go.

These are the signs of aneurism in almost any one of the great vessels. Others depend largely upon the locality, which let us seek to determine in the present instance. It has been seen that the pulsating tumor is above and behind the left clavicle, and in this location it can scarcely involve any other artery than the subclavian. If you will recall your anatomy, you will remember that the left subclavian is the third in order of vessels arising from the summit of the aortic arch. It ascends vertically to a distance equal to the innominate artery, and then curves outward to the left, between the anterior and middle scalene muscles, where it passes over the first rib, but under the clavicle, after which it becomes the axillary artery.

Among the most common symptoms of aneurism, in addition to those already noted, are those of pressure.

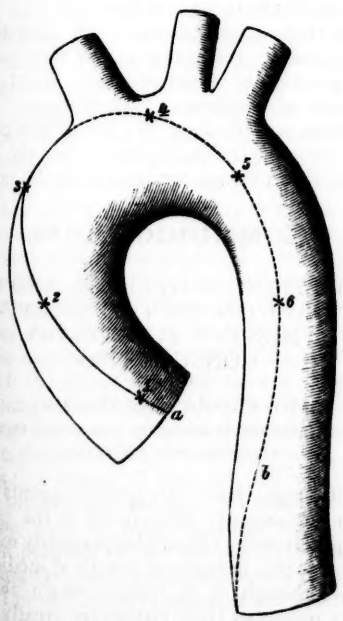
In this case of aneurism of the subclavian artery, we have no reason to look for encroachment, either upon the œsophagus, causing difficulty in swallowing, or upon the trachea, interfering with respiration, or upon the recurrent laryngeal nerve, causing alterations of the voice, or upon the vertebræ, or even upon the clavicle, although, when the subclavian aneurism becomes large, it may exert pressure upon the clavicle, give rise to great pain, and, in the course of time, to gradual erosion.

So, too, an aneurism may cause some alteration in the pulse, this varying with its situation. We should not look for any marked differences in the two radial pulses in this case, because the aneurism involves the subclavian, which, in its continuity, forms the radial artery. If it were an aneurism of the arch of the aorta, it might press upon the subclavian or the carotid artery, and in that way cause alteration in the pulse, so that a small pulse in the radial artery may be the result of aneurism of the arch of the aorta.

Passing again to the subject of aneurism of the aorta and of the great vessels of the neck, we find in the study of the former that there are certain sites which are more prone to dilatation than are others. These are the points against which the column of blood, as it passes from the heart into the aorta, impinges most strongly. As you know, the blood is sent through the aortic orifice by the ventricular systole with a sort of a twisting motion. As a result of this twist, there are different parts of the wall of the aorta which successively receive the force of the impulse. Thus, a spiral line of impingement is produced, beginning on the anterior face of the aorta and extending gradually around until its posterior face is reached. This is admirably shown in the accompanying diagram, from the sixth and

last (German) edition of Prof. Rindfleisch's excellent text-book of pathological histology. In this diagram, the solid black line is intended to indicate that part of the anterior face of the aorta which is thus impinged upon, while the dotted line is drawn on the posterior wall.

We observe that in the anterior line there are three situations, indicated by the numerals 1, 2, 3, at which aneurism of the arch of the aorta is most likely to make its appearance; and, knowing the direction of pressure in each instance, and reasoning backward from its effects, we are enabled to indicate the precise spots at which the aneurism began. Three points, indicated by the numerals 4, 5, and 6, are likewise found on the posterior surface. The first situation (*a* 1) is just above the aortic leaflets and in front of the origin of the pulmonary artery. An aneurism which starts at this point tends to drag upon the aortic orifice so that the lunulæ of the aortic valve are not able to completely close it, and consequently there is aortic insufficiency. In the case before us, the aneurism is too far away to produce such insufficiency. Further, as the tumor enlarges, it presses upon the pulmonary artery and interferes with the



passage of blood into the lungs. The right ventricle hypertrophies in its efforts to overcome this obstruction. To this sometimes succeed insufficiency of the tricuspid valve and venous pulse. When this aneurism ruptures, it empties for evident reasons into the pericardial sac, and is a not infrequent cause of sudden death in cases in which no disease had been suspected.

The second seat of aneurism (2) is more central in its situation and is the most frequent point of beginning of aneurism of the ascending aorta. The aneurism is immediately under the sternum and usually approaches the latter bone at the junction of the body with the handle. Continuing its progress in the direction of least resistance, it bores its way through the sternum, and finally the integument becomes its only covering. When rupture takes place, the blood escapes into the subcutaneous tissue, or the skin may rupture and the blood be discharged externally.

The third situation (3) is the antero-lateral wall of the convexity of the arch of the aorta, whence the aneurism pushes its way toward the apex of the right lung, which is the direction of least resistance. The firm bony bodies of the vertebræ resist its movement in the opposite direction, and it is forced up toward the apex of the lung. Consequently, we have first agglutination of the pleural surfaces by adhesive inflammation, and later rupture into the smaller bronchi of the right lung; whence the fatal hemorrhage is apt to be ushered in by hæmoptysis.

The next situation (4) is at a point midway between the innominate and left carotid arteries, whence the aneurism extends upward toward the trachea. Before reaching the size of a hen's egg, this aneurism, which usually has a constricted neck, perforates the trachea. Before this happens, however, the aneurism, by the pressure which it exerts, gives rise to tracheal symptoms and to alterations in the voice which in the earlier stages are often mistaken for those of laryngitis. When this aneurism ruptures, it is generally into the trachea.

Just beyond the left subclavian artery, between it and the isthmus of the aorta, in the descending limb of the arch, we find another position (5) in which aneurism occurs and is disposed to work its way posteriorly, and to the left toward the vertebræ. Not infrequently there is a cylindrical dilatation of the entire aorta anterior to the isthmus.

The remaining aneurisms of the descending arch all tend more or less to work backward, eroding the vertebræ, sometimes opening the spinal canal, and producing symptoms of paralysis. The above are the situations in which aneurisms of the aorta are

most likely to occur. The point of origin of the great vessels is often a seat of aneurism, for the reason that there is always some resistance where one vessel branches from the other, and this favors dilatation.

Why do aneurisms occur? What is there in the condition of the individual or of his blood-vessels which will tend to the production of aneurism? I do not believe that an aneurism can occur in a blood-vessel whose wall is perfectly healthy. For the production of aneurism, it is essential that there be some weakness in the vessel wall. This is occasionally the result of injury, but far more frequently is due to a fatty degeneration in the intima not always brought about in the same way. It is most frequently due to chronic endarteritis or chronic inflammation of the coats of the blood-vessel, and constitutes what is known as atheroma. Another cause is the so-called "fatty erosion," said to occur independent of inflammation. This is most frequently the starting-point of that variety of aneurism known as dissecting aneurism, where the blood, perforating the inner coat at a single point, dissects its way for some distance between the inner and outer coats. But by far the more frequent cause of aneurism is endarteritis, and the resulting atheroma. The causes of endarteritis are various. The most common is perhaps alcohol. Unquestionably blood loaded with alcohol is one of the most potent causes of this inflammation. Syphilis is another fruitful cause of chronic inflammation of the lining of the aorta. The habit of "free living," as it is called, is very prone to produce this condition. The poison of gout is another cause. It is possible that the defects in nutrition which always attend advancing age, and which come at different ages in different persons, may be sufficient to produce this fatty erosion, but they are not sufficient to produce endarteritis. Given these predisposing causes of aneurism, the impulse of the blood is by far the most usual exciting cause. In addition to this, there may be obstruction to the flow of the blood, which may contribute to the dilatation. Thus the pressure of a tumor on a blood-vessel, conjoined with an atheromatous condition, may lead to the production of aneurism. Whether or not, in the absence of any of the predisposing causes of aneurism, any obstruction is sufficient to produce the dilatation, is, as I have said, doubtful.

Treatment.—The question of practical importance is of course the management of a case of aneurism. I say freely that I have not been satisfied that any of the measures from time to time proposed, except surgical procedures, are of much service. Of remedies suggested, the iodide of potassium has perhaps the largest reputation and is most generally used. I have systematically and thoroughly tried it, but I have never been able to see that it does the least good. Electrolysis has been used by others with somewhat varied results, but I have never seen enough evidence to encourage me to make use of it. Compression in the case of vessels like the subclavian has been useful, either in curing the aneurism or temporarily preventing its extension. Surgical operations by ligation, either on one or the other side of the aneurism, are the most certain methods of cure, where an artery is accessible. Operation in aneurism of the aorta is of course impossible; but, in the innominate, carotid, and subclavian arteries, ligation has been used with success, and, where the immediate effect of the operation is not unfavorable, a cure may be expected. It may, however, happen that the blood-vessel is so atheromatous that it is disposed to reproduce the condition, and this point must be borne in mind in deciding whether or not an operation shall be performed. If there is atheroma, the operation will be likely to be a failure.

In those cases in which an operation is not possible, the treatment is that suitable for a case of heart-disease: quiet, rest, absence of excitement and exposure. Such a course will prolong the life of the patient and prevent the enlargement of the aneurism, which sooner or later must be fatal.

COMMUNICATIONS.

ANTIPYRIN, ANTIFEBRIN, AND PHENACETIN IN THE TREATMENT OF PULMONARY CONSUMPTION.

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Although these therapeutic agents have been but recently introduced to the profession, their range of usefulness already extends over a wide domain of practical medicine; and, although it is quite certain that in many instances their virtues are greatly overestimated, I think the practical results which will be offered in this paper show that if these substances are properly administered they form a most valuable and important addition to the therapeutics of pulmonary

consumption. In common with the practice of the day, I gave antipyrin for several years solely with a view of obtaining its febrifuge properties, and, while there can be no question regarding its power in this respect, more recent experience has taught me that this is not its only mission, and that it is a serious mistake to discontinue its use in cases of phthisis after the elevated temperature has been reduced very nearly or altogether to a normal point. Experimental research and the successful employment of these drugs in other diseases, notably in chorea, epilepsy, neuralgia, gout, and chronic rheumatism, which are unaccompanied by fever, point out that they possess an undoubted action on the nervous system, and their great utility in the treatment of phthisis is probably entirely due to the marked stimulating influence which they exert on this structure of the body. The remedial value of these agents is therefore not fully obtained unless they are continued after their use as antipyretics has ceased; for there is much reason for believing that the fever, the inflammation, the dyspnœa, the anorexia, and many other collateral processes in pulmonary phthisis are in a great measure dependent on disordered innervation, and that the remedy which controls the first-named symptom will also control the others. This distinction between the purely antipyretic action of these drugs and their power to counteract the other disorders is too important to be overlooked in the treatment of this disease. In my earlier observations on the clinical effects of antipyrin, I often noticed that, in giving it to phthisical patients with a high temperature and with a hopeless physical condition, the fever came down at once, and an improvement immediately followed in the accompanying conditions. I have notes of several cases, one of which I will briefly relate, in which the most surprising results occurred. A young woman, aged 19, with a large cavity in one apex and general destruction going on in the other lung, consulted me in June, 1885. I attended her, off and on, during that summer and autumn, without being able in the least to make an impression on the rapid progress of the disease, until the following October, when, at a loss what else to do, I prescribed ten grains of antipyrin, forenoon and afternoon. In spite of the small size of the dose, which was given in order to avoid the production of a serious collapse—a view which prevailed at that time—a complete transformation in her whole condition took place. Her fever came down, of course, but the cough and expectoration also became less, the night-sweats ceased, her appetite and general strength improved, and she felt better in every way. The disease had, however, already produced too serious inroads on her health to hold out much encouragement toward the prolongation of life, and she died the following December. The valuable lesson which this case should have taught me at the time was wholly overlooked, because I was imbued with the prevailing belief that, after the full antipyretic effect of antipyrin had been secured, it became a superfluous and perhaps a harmful agent, and would have to be discontinued.

So little impression did this case make on my mind as to the true and permanent remedial effect of antipyrin in phthisis, that I then failed to appreciate the import of a very interesting paper by Dr. J. Holland, of St. Moritz, Switzerland, which appeared in the *Practitioner*[1] about the same time, and in which he reports a series of cases of phthisis also treated with antipyrin; and evidently, like myself, administered the drug then only with a view of obtaining its febrifuge action, although, in the light of our present knowledge of its action, it is quite evident that it played a deeper rôle. His results were, however, so striking and in such perfect harmony with what I have since witnessed myself that I shall take the liberty of quoting the history of some of his most noted cases.

"*Case I* (Holland).—In last July (1884), I was consulted by a lady who was in advanced consumption. That morning, she had spat up about two teaspoonfuls of blood, and, on examining her chest, I found a cavity at the left apex, with extensive softening all around it; there was also softening at the right apex in front, but over a limited area; the cough was particularly troublesome, and appeared to be out of proportion to the amount of expectoration, although this was considerable. Her high temperature persisted and rose daily to about 102°; indeed, during the last week, it had on three occasions reached 103°, being highest from 4 to 6 P.M. Her temperature at my first visit was 103.2°. I advised total rest in bed, a light nutritious diet, a dose of Carlsbad salts the first thing in the morning, to be followed by ⅛ gr. morphine, and ⅛ gr. digitalis leaves every three hours. Next morning at 10.30, her temperature was 101.4°; in the evening, 103°. Instead of the digitalis, I now prescribed fifteen grains

[1] Antipyrin in Phthisis and other Febrile Disorders. Practitioner, vol. xxxiv, p. 521.

sodium salicylate every three hours. The night of the same day, her temperature again rose to 103.6°, and her cough was more troublesome. I now determined to try something else, and gave her twenty grains of antipyrin every three hours while awake, until three doses had been administered. The next afternoon, I saw her at the usual hour, and, directly I entered the room, I noticed how much better she looked. She told me she had taken the first dose of the antipyrin on the previous evening at 6 o'clock, and in less than an hour afterward she felt more comfortable and less feverish; at that time, she found her temperature 101.6°. At 9 P.M., just before taking the second powder, it was exactly 101°, and, at a quarter to eleven, 100.4°. She had slept well, only waking up when the cough troubled her, had eaten better, and altogether felt herself much better and more comfortable than she had done for weeks. The next evening, her temperature registered 100.4°. My patient complained of no disagreeable or unusual sensations. I could discover no altered physical signs in the chest, and there had been no evacuation of large quantities of expectoration, or anything else that could account for the fall of temperature, except the action of the drug itself.

"On the fifth day, she reported: 'Temperature at 9.30 last night, when I took another powder, exactly 100°, this morning at 9 A.M., 98.8°; at 2 P.M., when I took my first powder, it was 99°. Had a good night, cough and expectoration not so troublesome, no perspiration, taking more food, and feeling very much better.' During my visit on this day at 5 P.M., her temperature was 99.2°. I ordered another powder at 8.30 P.M., and two hours afterward the temperature was normal. Sixth day: Patient had a good night, cough and expectoration still diminishing, no perspirations, appetite and digestion good, spent two hours out of bed. Temperature 9 A.M., normal; 2 P.M., 98.8°, at 5 P.M. normal, and at 10 P.M. normal. Took a powder at 2 and at 6 P.M. Seventh day: Fairly good night, cough and expectoration a little more troublesome than the night before, but slept well on the whole; appetite and digestion good; no perspirations; spent four and a half hours out of bed. Temperature at 5 P.M., 99°; took a powder at 2 and 6 P.M. Eighth day: Temperature normal all day; took two powders. Ninth day: Same report. My patient continued the antipyrin twice a day for four days longer, and once daily for about a week afterward. During this period, she had only an occasional elevation of temperature, the highest registered being 100°. Her cough improved, the expectoration became less, and she was able to take carriage-exercise. In a month from the time I first saw her, she had gained three pounds in weight and she only coughed and expectorated in the mornings. The physical signs had improved in proportion, for the softening at the right apex had cleared up, and had conspicuously diminished around the cavity at the left side; the cavity itself showed signs of healing, and freer breathing was heard all over the left lung." He further states that this patient spent the following winter at St. Moritz, gained fifteen pounds in weight, temperature nearly normal since the previous August, became able to walk ten miles with very little fatigue, her appetite and digestion remaining excellent.

Case VI (Holland) (Abstract).—A woman with troublesome cough consulted him in July, 1884. She had a bad family history, and her chest showed moist sounds in both apices. Evening temperature, 100°. Prescribed bitter tonics for her, with antipyrin, and sitting outdoors all day long. She lost her fever at once and improved rapidly, both lungs drying up quickly. So far as he knew, she had no recurrence of the attack.

Since the publication of Dr. Holland's paper, several other antipyretics have been brought to the attention of the profession. Among the most valuable of these are antifebrin and phenacetin. The former is well known already, and the latter bids fair to become its successful rival. About a year ago, directly after its discovery was announced, I received a small quantity of phenacetin through the kindness of Mr. Merck, with which I made some clinical observations, the results of which were published in the *Medical News* for August 20, 1887, under the title of *The Effects of the Latest Febrifuge, Acetphenetidine*, as it was at first known. Altogether the drug acted very favorably, and I have at intervals continued its use since then. Its action is as decided as that of antipyrin and antifebrin, and it is said to be less liable to produce toxæmia. The first case in which I gave it was one of acute phthisis, with an afternoon temperature of 105.2°, which was preceded by a chill. She received three grains of the drug every three hours. The next afternoon she had another chill, and her temperature was 104°. The third day she

had no chill, and her afternoon temperature had sunk to 101°. The fourth day she had another chill, but her afternoon temperature only rose to 101.2°. The fifth day her temperature was down to 98°, and the phenacetin was discontinued. On the sixth she had no chill, but her temperature rose to 101° P.M. Seventh day: Chill, afternoon temperature 103.4°. Resumed the drug. Ninth day: Afternoon temperature 100.8°. Tenth day: Afternoon temperature 100.6°. At this point the supply of the drug became exhausted. The other case was one with an old cavity and a temperature in the evening of 102°. He received the same dose. Second day: Afternoon temperature 101.4°. Third and fourth days same, fifth day 100°. It was quite obvious, from even this limited experience with the drug, that it had a marked influence in depressing the temperature, and, beside this, it seemed to improve the cough, expectoration, appetite, and the general condition of the two patients. Subsequent use of the drug showed me that I gave it in too small doses in these cases. It is a valuable antipyretic, and, were it not for its expensiveness, which is even greater than that of antipyrin, it would soon become very popular; but, so long as the same results can be obtained by antipyrin, or by antifebrin, which is the cheapest of all the antipyretics, its consumption will probably be rather limited. I think, however, that in giving these agents it is a good plan to occasionally alternate one with the other. Very frequently one of them disagrees, as in the case of antipyrin, which sometimes produces urticaria, or as in that of antifebrin, which brings about lividity of the lips, gums, finger-nails, etc., and then it is very advisable to resort to phenacetin, which is believed to be free from evil consequences.

One thing must always be remembered in the administration of any of these agents, and that is that small doses, which are usually available in the reduction of the fevers of acute diseases, are practically useless in subduing the fever of chronic phthisis. Eight or ten grains of antifebrin and phenacetin, and twelve or fifteen grains of antipyrin every four hours, are small enough doses to begin with, and frequently they will have to be largely increased before the desired results are secured.

I shall now present the histories of a few cases of phthisis which were treated chiefly either with antipyrin, or antifebrin, or with both, in order to demonstrate the salutary influence of these drugs in this disease.

Case I.—W. T., man, aged twenty-three, was first seen March 27, 1888. He then had a cough which had lasted for some time, a profuse yellow-whitish expectoration, no hæmoptysis, was losing flesh (weight 109 pounds), appetite poor, tongue coated, had chills, fever, and night-sweats. His mother, father, and one sister died of phthisis. Physical signs, right lung: Tympanitic percussion-sound in apex, indicating a cavity extending to second intercostal space in front. Dulness from this point to base of lung in front, and from apex to base behind. Moist crackling over cavity, and crepitation and subcrepitation over the remaining portion of the lung anteriorly and posteriorly. Afternoon temperature 102.6°. March 28, afternoon temperature 104°; antifebrin, four grains every three hours, inhalation of 25 per cent. aqueous solution of ichthyol through respirator. April 3, cough less, temperature 101°; same treatment. April 9, temperature 104°; seven and a half grains of antipyrin every four hours with the ichthyol inhalations. April 20, P.M. temperature 102°; same treatment. May 7, P.M. temperature 100°, cough and expectoration very much less, night-sweats diminished, appetite very good, and his strength is improved. May 14, appetite good, P.M. temperature 102.5°; same treatment. May 28, P.M. temperature 101°. The antipyrin now produced its characteristic eruption, is discontinued, and ten grains of antifebrin every three hours are substituted. June 26, coughs and expectorates but very little, appetite very good, P.M. temperature 100°. July 6, feels very good, P.M. temperature 100.5°, weight 116 pounds; same treatment. Physical examination shows that the dulness in front from second intercostal space to base of lung had disappeared, and that the dulness behind had markedly diminished. No moist râles audible anywhere except some crackling over cavity-area. Cavity is much more dry than when first seen. His trade is an outdoor one, and he has been at it for some time.

Case II.—July 3, 1888, L., woman, aged 21, had pleuro-pneumonia two and a half years ago, has now a cough and yellow expectoration for six months, is losing flesh, poor appetite, night-sweats, and temperature of 104.25°. No family history of phthisis. Physical signs, left lung: Cavity in left apex; below cavity to base, exists an abundance of râles anteriorly and posteriorly. Right lung: Mucous râles over whole lung. Eleven and a quarter grains of antipyrin every four hours. July 7, she felt better,

appetite improving, and she had a temperature of 102.6°; twelve grains of antifebrin every four hours. July 10, temperature 101°; same dose of antifebrin every three hours. July 12, cough and expectoration much better, boil in left axilla, eats good, temperature 102°. July 14, feels better, temperature 101°; same treatment. July 16, appetite good, night-sweats less, temperature 99.5°. July 20, temperature 101.2°, appetite good. July 28, feels very good, eats well, temperature 98.5°. Temperature was taken only in the afternoon. Still under observation.

Case III.—Woman, aged thirty, was first seen May 8, 1888. She has been coughing for eight years, expectoration profuse and of a gray color, no hæmoptysis, but was losing flesh, had night-sweats, no appetite, irregular bowels, tongue coated, œdema of both insteps, temperature 104°, weight 90 pounds. Physical signs show a large cavity in upper third of right lung, with crepitation in extreme end of apex. Mucous râles from cavity down to base, anteriorly and posteriorly on same side. Crepitation at apex and base of right lung. Chest and whole body very much emaciated. She received seven and a half grains of antipyrin every four hours with ichthyol inhalations. May 12, her temperature was 101.25°, her cough was better, and expectoration had markedly diminished, the appetite improved, and she said she felt stronger. May 26, temperature 100°, felt very much better; antipyrin was increased to eleven and a quarter grains every four hours. June 5, temperature 99.8°, felt very good. June 8, temperature 101.5°; antipyrin was now increased to fifteen grains every three or four hours until up to the present writing, the temperature being generally 99° or 99.5°, only rising once to 101°. She is now and has been for some time able to take from one quart and a half to two quarts of milk, three-quarters of a pound of raw beef, an egg, and raw beef suppositories per day. The night-sweats are improved, the œdema of the feet has disappeared, and, although she has not gained much if any in weight, she looks and feels quite different. Some days she has taken as high as seventy grains of antipyrin, without producing more disturbance than a slight lividity of the lips and finger-nails, and a rash which appeared only during the last week. She was at once placed on eleven and a quarter grains of antifebrin every three hours. The beneficial effects of antipyrin became manifest directly after its first administration, and have certainly continued up to the present time. The temperature was taken in the afternoon.

Case IV.—P., man, aged thirty-five, came under my care June 21, 1888, with the following history: Well until last January, when he was taken with a chill, began to cough and expectorate yellow sputum, had slight hemorrhages, appetite poor, tongue coated, lost flesh, and afternoon temperature 101°. Two of his sisters died of consumption, aged sixteen and eighteen years respectively. Physical signs: No impaired percussion-resonance, sibilant and subcrepitant râles in both apices, and crepitation at bases of both lungs, marked especially in lateral and posterior areas. Beside these, there are distributed small areas of subcrepitation over different parts of both lungs, especially the left at the intersection of the sixth rib with the nipple-line. Treatment, six grains of antifebrin every three hours, inhalation of compressed and rarefied air, pulmonary gymnastics, a nutritious diet, and flaxseed poultices. The antifebrin in the course of a few weeks was increased to twelve grains every three hours, his temperature gradually sank, he improved in cough, appetite, and strength, and, on the 25th of July, when his afternoon temperature was normal and had been so for some time, his chest showed the following physical signs: Very few râles in right and none in left apex, few crepitations at base of left lung, chest-movements very much increased. In this time, he gained one pound and a half.

Case V.—C., man, aged thirty-four, consulted me May 9, 1888. Cough and expectoration since previous July, losing flesh, poor appetite, coated tongue, dyspnœa, and an afternoon temperature of 101°. Weight 110 pounds. Physical condition: Cavity in left apex, and mucous râles distributed over same lung; right lung normal, although whole chest is very flat and immobile. He was treated chiefly with antipyrin and pulmonary gymnastics. His temperature also came down, and he began to improve in every respect. On the third of July, he weighed 117½ pounds.

I could quote many other cases in support of the practical usefulness of these agents in the treatment of pulmonary consumption, but they would demonstrate no more than what has already been shown. I do not wish to convey the meaning that they are specifics, but I do mean to say that they are most important levers with which we are able to stay the fever, tone up the nervous system, improve nutrition, and compel the disease to give us time and opportunity to

feed the patient and to modify the local condition of the lungs by external applications, pulmonary gymnastics, physical exercise, etc.—most essential considerations in the therapy of this stubborn disease.

EPILEPSY DUE TO STENOSIS OF THE INTERNAL OS UTERI: OPERATION; CURE.

BY WILLIAM A. CAREY, M.D.,
ASSISTANT PHYSICIAN IN DISPENSARY FOR DISEASES OF WOMEN, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

That an earnest and exhaustive effort should be made in every case of epilepsy, to determine whether the affection is due to a central lesion, to an alteration of the blood, or to a peripheral irritation, is becoming better appreciated as the record of "reflex" cases is multiplied. The list of causative lesions is increasing, and it will continue to increase as greater thoroughness is used in the search for etiological factors. Attention has recently been called to a hitherto unsuspected possible cause of epilepsy and various other nervous disturbances, namely, insufficiencies of the ocular muscles.[1] It has been generally conceded that epilepsy in the female may be due to uterine or ovarian irritation, and, in fact, it has been so frequently and perhaps so improperly referred to this that a reaction has taken place, leading to the opposite error of ignoring such lesions as probable factors in causing epilepsy. Dr. Allen McLane Hamilton, writing of epilepsy, in the "System of Medicine by American Authors," says: "Reflex causes play a prominent part in many instances, though I am inclined to think that their importance has been greatly exaggerated. This is especially true of so-called uterine epilepsy." But he adds: "The fact that in some women we find *accès* at a period identical with menstruation points to a close relationship." A somewhat careful review of the literature of the subject shows only two reported cases in which epilepsy seemed to depend on conditions similar to those in the case whose history I shall give.

The first of these cases was reported by Dr. M. A. Pallen, in the *St. Louis Medical and Surgical Journal*, 1869, under the title of "Dysmenorrhœic Epilepsy and Sterility." In this case there was stenosis of the internal os uteri, for the correction of which the cervix was incised, and, after making a few alterative applications to the mucous membrane, to relieve an endometritis which had been produced by the anatomical defect, the dysmenorrhœa and epilepsy disappeared. The other case was reported in the Detroit *Lancet*, 1880, by Dr. J. H. Carstens, under the heading of "Epilepsy due to Uterine Stenosis." Here a girl, æt. 17 years, had menstruated regularly for three years, when, upon "catching cold," the menses suddenly stopped. Two months later, upon their reappearance, there was dysmenorrhœa with epileptic convulsions. These symptoms persisted through eight menstrual periods, when, upon the discovery of a constriction of the uterine canal at the internal os, rapid dilatation was performed, and the trouble disappeared for three months. At that time the patient was again under observation, having experienced pain and dizziness during the last menstrual epoch.

The following case shows a longer period of illness existing prior to operation, and exhibits a more satisfactory result—ten months having elapsed, during which time the patient has been entirely free of her former trouble.

Mrs. F., æt. 24 years, blonde, well developed, weight 130 pounds. Married five years, and sterile, although it is stated that, about six months after marriage, she miscarried at three months, after lifting heavy furniture. The patient came under my observation September 16, 1886. When first seen, she was in bed, unconscious, with flushed face and hot dry skin. There were twitchings of the muscles of the face and extremities, with an occasional tossing of the arms and clenching of the fists; also grinding of the teeth, but no biting of the tongue, nor decided frothing of the mouth. Occasional groans were uttered, as if the patient were conscious of severe pain. The respiration was not embarrassed. Temperature, 104.6° F.

Consciousness returned at intervals, to be succeeded by unconsciousness and the convulsive movements above described. This condition lasted for an hour, and was followed by a deep sleep, prior to which the patient said she felt much better and was relieved of the pain in the head, pelvis, and thighs. The following history was obtained: Attacks similar to and graver than the one described had been frequent during the past two years. They bore a close relationship to the menstrual molimen,

[1] Functional Nervous Diseases, by Dr. Geo. T. Stevens, of New York. Paper entitled "Graduated Tenotomy in the Treatment of Insufficiencies of the Ocular Muscles," by Dr. Charles H. Thomas, MEDICAL AND SURGICAL REPORTER, March, 1888.

occurring during the continuance of the discharge, or preceding or succeeding it by a period varying between one and four days. This attack occurred while she was menstruating, the discharge having appeared two days previously, and was accompanied with a slight chill and considerable pelvic distress. The following day, all untoward symptoms had disappeared, with the exception of a dull headache. The diagnosis was epilepsy, although the symptoms in this attack were not as sharply defined as they were on subsequent occasions. The pyrexia during an attack was never so marked afterward. Although a rise of temperature usually occurs during and after the second stage of such attacks, it is not generally so high as in this case. After the lapse of four months, the patient reported, with these additional symptoms: Severe headache, frequent micturition, dysmenorrhœa, obstinate constipation, and various nervous phenomena, including a complete change of disposition and marked failure of memory. Domestic duties, which formerly were performed with interest, now bore heavily upon her; social ties were disregarded, and her bearing toward those about her was noticeably altered. She remained in her room much of the time, and was disposed to melancholy. Previous to marriage, three years before, she considered herself perfectly well. There was no family history elicited which threw light upon the origin of her illness. She was inclined to trace it to the miscarriage. The dysmenorrhœa began after this mishap, but there was no suspicion of retained membranes, for there was neither menorrhagia nor metrorrhagia. Considerable pelvic inflammation doubtless attended this accident, for she was confined to bed for about four weeks subsequently. Menstruation was somewhat irregular afterward, recurring at intervals of from three to five weeks. Dysmenorrhœa was sometimes so severe as to require medical attendance. The character of the pain was indicative of an obstruction to the discharges—pain occurring at intervals, and being relieved by the escape of blood-clots, the pressure of which had probably distended the uterine canal. A vaginal examination revealed a small uterus, with a hard conical cervix, which was pointing in the direction of the vaginal outlet. The external os was rounded and small; the fundus anteflexed and pressing on the bladder. The introduction of the sound beyond the internal os was accomplished with difficulty. The condition was anteflexion and stenosis of the internal os uteri. Rapid dilatation of the canal of the uterus was advised, with a view to relieve the pain attendant upon the monthly sickness, rather than in hope of curing the epilepsy, which was steadily growing worse.

This measure was not carried into effect, however, until five months after its recommendation. During this interval, she had five attacks similar to the one described. They were centred around the menstrual nisus in the following manner: February, 1887, within five days after the cessation of the discharge; March, just at its close; April, on the first day of the flow; May, four days previous to the appearance of the discharge. Fifteen days afterward, she had a severe epileptic seizure while visiting a relative. This was the fifth grave attack, in addition to the monthly convulsive derangements, during a period of two years. This characteristic seizure, which exhibited all the well-known features of epilepsia gravior, did not occur sufficiently near the menstrual period to suggest a relation with that function, but two subsequent like attacks were experienced coincidently with menstruation. The monthly disturbance, which had recurred so regularly, was of the same nature as these more severe manifestations, differing only in degree. Of the latter, there were only seven attacks, while the former were experienced monthly for nearly two years, and were gradually developing into the graver form, their periodicity implying a close relationship between them and a perversion of the menstrual function. The uterine lesion explained the difficulty in menstruating, and its correction was followed by cessation of the convulsions, which were thus proved to have been simply reflex manifestations of uterine irritation.

On June 6, 1887, Dr. William L. Taylor dilated the canal of the uterus to 1¼ inches. Seven days after the operation, the menses appeared, and were so painless that she was not aware of her condition, except by the external appearance. Unfortunately, she did not remain in bed, as directed, but, feeling so comfortable, was imprudent enough to pay a visit, on the last day of menstruation, to a friend living at a considerable distance, and on her way home was overtaken by a thunder-storm, which she hurried to escape. This exertion, so soon after the operation, and just when the uterus and its appendages were especially susceptible, proved sufficient to provoke another fit. When only a square away from her home, she dropped to the ground in an unmistakable epileptic con-

vulsion. Successive convulsions occurred for about two hours. During a lucid interval, she mentioned the writer's name as her medical adviser, but, before she could give any information which would throw light upon her identity, she relapsed into unconsciousness and convulsive movements. It was after midnight when I saw her in the saloon to which she had been carried. She was removed to her home in a large rocking-chair, and soon afterward fell into a profound sleep, which lasted well into the morning and left her with a dull headache the following day. During the month of July, she was out of town, and, though she suffered some sharp pains while menstruating, they were not like those formerly experienced.

Upon returning to the city the following month, her general health appeared much improved, and it was chiefly this feeling of returning health that led to many indiscretions which retarded her recovery. During this month, she repeated the misfortune of June—by over-exertion during menstruation. The flow had begun without any pain, and she felt so well that much care seemed unnecessary. While walking along the street, she suddenly recognized an aura, and had time to ring the bell of a house and gain admittance just as she was seized with a convulsion. This was the most severe, and the last, epileptic attack which she has had. She was removed to her home on a stretcher furnished by the police department, and had several milder convulsions afterward, although a period of over two hours had passed since the beginning of the attack. As usual, a profound sleep succeeded, and left her quite well, excepting a feeling of heaviness the next day.

The cause of these two invasions of epilepsy after the operation was undoubtedly uterine irritation. This, however, was not due to any obstruction in the uterine canal, but to an excitation of the nerve-structures of the uterus and ovaries, inducing too great a flow of blood to the parts which had been rendered, for a time, hypersensitive by the operation. Had she remained in bed until after the congestion attendant upon the catamenia had entirely subsided, it is reasonable to suppose that she would have escaped the seizures. There is, necessarily, some congestion of the uterus and neighboring structures resulting from rapid dilatation of the uterine canal, and therefore it is natural to anticipate that the menstrual period immediately succeeding the operation will be possibly more painful than usual. The ovaries—one or both—are sometimes involved to such an extent that they undergo hypertrophic changes and become swollen and tender. It is evident, therefore, that the patient erred in making such exertion before the pelvic organs had recovered their normal circulatory and nervous equilibrium. During the following menstrual period, greater attention was paid to bodily rest, and not the slightest trouble was experienced. Instead of dysmenorrhœa and epileptic paroxysms, there were painless menstruation and perfect composure of body and mind.

Ten months have now elapsed since the last convulsion occurred, during which time she has improved in every respect. With the correction of the uterine defect, all the abnormal conditions—dysmenorrhœa, frequent micturition, epilepsy, headache, failure of memory, irritability, melancholy, and other symptoms expressing a general decline of health, have disappeared, and she now considers herself in perfect health.

The deduction to be made from the history is apparent: The epilepsy and accompanying derangements were due to constriction of the internal os uteri. This stenosis was a barrier to the free escape of discharges at the catamenia. The consequent engorgement irritated the nerve-supply and this peripheral irritation was transmitted to the central nervous system and manifested itself in epileptic paroxysms. While it is true that the bromides were administered at various times during the course of treatment, they were not relied upon for curative effects, and were not pushed for specific action. Indeed, they were first given to relieve the headache from which the patient suffered. General tonic and alterative remedies—iron, quinine, strychnine, arsenic, were prescribed for about six weeks early in the course, and nitrite of amyl was ordered to be inhaled in the event of an aura occurring. But, when the warning came, the vial was never at hand. The drugs thus administered can therefore scarcely be included as curative agents. This is apparently a case in which epilepsy originated and persisted because of a definite uterine lesion, the relief of which was followed by cure. It is not unreasonable to hope that in the future many cases of so-called idiopathic epilepsy may be recognized as reflex manifestations of ascertainable causes. Therefore, as the causes of epilepsy are almost as numerous as its victims, it behooves us to interrogate every organ and correct every abnormality which could possibly play the part of an irritant.

1947 North Eighteenth Street, Philadelphia.

HEALING OF WOUNDS IN HIGH ALTITUDES.

BY W. N. SHERMAN, M.D.,
KINGMAN, ARIZONA.

It has probably not escaped the notice of the observant surgeon residing in the high places of the Rocky Mountains, how quickly and kindly the healing of all wounds takes place, and often under the most unfavorable circumstances. To me, this fact has presented a striking contrast with my experience east of the Mississippi River. My observation has extended over eight years of continuous practice in several localities of the Rocky Mountains in the Territories of New Mexico and Arizona, three years of this time in the capacity of a railway surgeon. The majority of wounds treated, however, have been gunshot wounds, including many of a miscellaneous character, and in localities from 2000 to 7000 feet above sea-level. Excepting a few cases of railway injury where the shock was great, the so-called capital operations resulted as favorably under the same conditions as did the minor surgical cases.

In this frontier country, men become accustomed to hardships and dangers, so that wounds that would be considered of a serious nature East are considered as trifles here; and often, when the sufferer would consult a surgeon, the distance or his isolation prevents it. Many a brave man, having been wounded by accident or otherwise, is taken to the rude camp of a kind friend, and then, under the care of unskilled comrades and the assistance of nature's antiseptic, he survives wounds to which, under circumstances apparently more favorable, he would have succumbed.

The aborigines, many of whom are the personification of filth, dress their wounds with dirty greasy rags, or bathe them in dirty water, and yet their wounds seem to heal as kindly as if treated antiseptically. These are stubborn facts to the enthusiastic advocate of the germ theories, but they are matters of frequent occurrence in this country.

My observations have not been confined to men alone. I have frequently been called upon to act in the capacity of a veterinary surgeon, and in the lower animals. I have noted the healing of wounds in a remarkable manner.

The conditions and surroundings under which the surgeon operates are often as unfavorable as those of the sufferer after the operation or injury.

Through necessity, the dressing of wounds and operations is sometimes performed in the field (outdoors), in the cabin of the miner, the hut of the ranchman, the Mexican adobe, an Indian "wickiup," a box-car, freight-house, or a dugout.

I need record but a few cases to illustrate the rapid manner in which wounds heal.

Case I.—D. H., aged 40 years, Mexican, miner, was injured by having a bucket of rock spilled upon his head while working in the bottom of a shaft. I saw the patient about 8 hours after he had received the injury; he was rational, had three large scalp-wounds and other bruises. I removed the hair from the region of wounds, washed them in spring-water, directed cold compresses, gave calomel grs. x, and left orders for the patient to be removed twenty miles, to town. I had discovered, as I thought, a fracture of the cranium, but did not ascertain its extent. The patient was lashed on a burro, and, with a comrade on each side, conveyed across the mountain 6 miles, from whence he was conveyed in a buckboard. He arrived about 24 hours after my first visit, and on examining his head I found the edges of the wounds quite firmly adhered by fresh granulations. I was greatly surprised at the rapidity of the reparative process, and used no little force to open the one over the seat of fracture. On further investigation, I found a marked indentation of the left parietal bone, at the margin of the coronal suture, about midway between the sagittal and squamous sutures. The extent of the fracture was small, and, as there were no signs of compression and no loose pieces of bone, I closed the wounds with adhesive straps and dressed them with hydronaphtholated olive oil. Patient complained of headache and restlessness; gave potass. bromide and chloral hydrate; relief followed, and in two days the patient left his room and walked next door to meals. In five days more, he returned to the mine, and went to work soon afterward. I ceased the daily dressing of the wounds April 1.

The fracture spoken of was very distinct, but may have been only of the outer plate. It seemed to have been made by the corner of a very sharp hard rock.

July 2, 1888. Saw this patient to-day for the first time since. He has been well, and worked steadily. There is still some depression in the cranium over the cicatrix, where the fracture occurred.

Case II.—I. C., aged 33, farmer, October 3, 1885, had his left arm caught in the machinery of a thresher. Primary amputa-

tion of arm above elbow. No antiseptics used, but otherwise dressed in ordinary manner. Patient progressed satisfactorily; stump healed in 21 days, and patient left bed. In 28 days, he resumed work with the thresher.

Case III.—R. M., age 23, car-repairer, was cut with razor in a drunken brawl. Wound below thyroid cartilage; a straight smooth cut, about five inches long, and extending across the front and lower part of the neck and through the skin and cellular tissues. Trachea was exposed, but uninjured. I was near the patient when he received the wound, and dressed it one hour afterward. Closed wound with twelve interrupted silk sutures. The patient resumed his spree, and, on the second day after the receipt of the injury, he resumed work. The wound was never dressed but the one time, and the patient wore a soiled silk handkerchief around his neck, which constituted the dressing. On the fourth day after receipt of the injury, he came to me to remove the stitches. The wound was completely healed, apparently by first intention.

I know of several instances in which men, desperately wounded, have fled from justice, taking refuge in open camps in the mountains, where, without medical or surgical aid, they recovered. I have seen operations performed in the most unscientific manner where perfect recovery followed, and men have acquired local reputations as surgeons who are shamefully illiterate and unskilled.

I have witnessed but one case of surgical septicæmia, and that in a case in which I had ligated the radial artery for a gun-shot wound of the deep palmar arch. The patient was considerably anæmic from frequent and repeated losses of blood. He afterward made a good recovery. I believe, also, that puerperal septicæmia is rare. I might add more cases in support of what I believe to be the reason of this rapid healing of wounds in these localities. I believe that, by certain natural conditions of our atmosphere, it is rendered to some extent antiseptic, or at least unfavorable to the existence and development of bacteria and other septic germs. It is a fact well known that fresh meat, cut and dried in the hot sun, cures without becoming tainted. This "jerked" meat enters largely into the summer diet of many of the inhabitants of this country who live away from the markets. It is said that the spores of the microbe are so universally distributed through air, earth, and water, that their exclusion from the human body is almost impossible. Moisture and warmth are conditions favorable to their growth and development. They require a moist surrounding in order to multiply, and, after removal of these conditions which favor their growth, their spores are carried through the atmosphere and thus contaminate the human body. Beale says (Microscope in Medicine) in a dry atmosphere the living bacterium would soon shrivel up and its life would be destroyed, it, as a living body, containing a large amount of water. On the other hand, the germs of bacteria may exist in countless multitudes in the atmosphere, and these under favorable circumstances will germinate and the resulting bacteria grow and multiply. Further, we know that a moist medium is required for the culture of these microbes and bacteria.

In these elevated regions the atmosphere is extremely dry, and this furnishes an unfavorable soil for the existence or development of such germs. The earth in these localities is also warm and very dry. There are probably not more than ten days in a year in which the ground is continually moist; in fact, we have dust about all the year, and we are frequently reminded of that fact by the violent winds that carry it into our houses and everywhere. If it is possible for the spores of these microbes to exist in our atmosphere, I believe our constant currents of air and our frequent winds are sufficient to drive them over our vast areas of mountains and valleys, and they are thus deposited in a barren soil. I have seen wounds, both in the human and the lower animals, heal under the most filthy conditions; and, if the bacteriologist could but get a look or a smell at one of our native Indian camps, he would stand in amazement when told that *their* wounds heal favorably under such conditions and habits. There is, beyond a doubt, something in our climate that is favorable to the healing of wounds, and I believe it to be our dry rare atmosphere, our dewless cold nights, our perpetual sunshine, and the constant currents of air which pass through our mountains and valleys. I am trying to solve some of these problems with the aid of the microscope, and hope to succeed.

—A man named Johnson, of Providence, recently swallowed sufficient strychnine to kill 200 men, after which he informed his wife of his action. She hurriedly emptied the contents of a can of kerosene down his throat and then summoned a physician. The latter thinks Johnson will recover.

SUGGESTION AND EXPECTANCY.

BY WILLIAM M. CAPP, M.D.,
PHILADELPHIA.

In an article by Dr. Dewees, on Amenorrhœa, etc., in THE MEDICAL AND SURGICAL REPORTER of June 30, 1888, he speaks of the ecbolic effects of manganese in two cases which he details. In seeking to account for the action of the drug in these two cases, he overlooks the most important considerations of all—namely, those which just now are occupying the minds of many of the French faculty—suggestion and expectancy. The patients applied to him with a well-formed but concealed purpose, representing, however, that they sought simply for a restoration of the catamenia (under proper circumstances, as they alleged). They believed that he could accomplish it, were determined upon having it, and probably covertly assisted in its production. They knew enough to see that their ulterior object would be gained if their ostensible object were accomplished. Here was a chance for the exercise of the force of mind over matter, of a most favorable kind, and the expected effect was accomplished presumably to the patient's satisfaction. The doctor, however, played only a subordinate part. He did nothing consciously or directly to produce the effect obtained; indirectly, however, and unconsciously, he inspired the patients to believe that his management in the matter would result as they suggested to themselves, expected, and fully determined that it should. Hence the result narrated, which was not from the physiological action of the drug used.

Recently a case somewhat similar in its main features came under the writer's observation. An unmarried woman below the age of twenty came under care for a hemorrhage. A little investigation showed it to be the sequel to an abortion. She frankly enough did not claim to have been deceived, since she had followed her own inclinations. She had applied to a physician much older than herself, in a matter of sort way, stated the condition of things without reserve, and asked relief. Her manner and conversation implied that she thought she was doing no unusual thing. She stated that he appeared to sympathize with her in her trouble, and gave her a prescription for pills which would "*make it all right.*" In a few days, after some little pain, a fœtus of about two months came away, hence the hemorrhage on account of which application was made on her behalf to the dispensary for a doctor's aid. Care was taken to look the matter up, and it was found that the physician had given a placebo with the assurance as stated, and in the drug-store the recipe on file showed that the pills contained simply a small amount of sulphate of cinchona. The dose was, of course, inert for such a purpose. The girl was a simple-minded creature of defective training and loose surroundings, and appeared to be unconscious of having done differently from others. But she had implicit faith in the physician, who, she thought, had promised to aid her to accomplish a certain purpose, and a full expectation and determination that it should be accomplished. A careful inquiry seemed fairly to place the case in the list of those properly known as effects of mind over the body.

1715 Spruce St.

GALVANO-CAUTERY ELECTRODES.

BALDWIN GLEASON, M.D.,
PHILADELPHIA.

A few weeks ago, my attention was attracted by an article in the *Medical News*, by a Dakota physician, describing how a practical galvanic battery might be made at a cost of five dollars. Galvano-cautery knives that will be more useful than any to be had in the market can also be made at home at a trifling expense.

Select copper wire of sufficient diameter (No. 14 will do) so that it will not heat during the passage of the electric current, yet not so large as to take up too much room when the electrode is used through a nasal speculum. Cut the wire into lengths of about six inches. Get a jeweler to drill a hole in one end of each length, for the reception of the platinum loop, and bend the other end so that, when two lengths are bound together with silk, they will fit into the handle of the electrode. Such copper wires, already drilled and bent, can be bought at surgical instrument stores in this city for fifty cents a pair. Holding a pair of such wires by their drilled ends, bind them firmly together by figure-of-eight turns of ordinary black button-hole silk, being careful that each turn lies smooth and tight on and between the wires before the next is put on. When the bent ends of the wires are reached, fasten the ends of the silk by a few half-hitches. The copper wires are now ready to receive the platinum tip. Buy, at any dental supply store, some

platinum wire. This should not be too thick, or it will not heat up readily, not having sufficient resistance; nor too thin, as in that case it will bend when you attempt to press it into the tissues. No. 22 is the size generally used. Bend a piece one and a half inches long sharply upon itself, and insert the ends into the holes drilled in the copper wires. Clamp the copper firmly on the platinum with pliers, and your cautery-knife is made.

Most of the cautery-knives for sale have the platinum soldered to the copper. This a disadvantage, as they easily break at that point, necessitating frequent resoldering. Clamping the copper about the platinum

does away with this disadvantage, while a few strokes with a file make a smooth joint. A coat of shellac varnish may be put upon the silk covering the copper wires, to improve the appearance of the electrode. Before attaching the platinum loop to the copper, it may be made to assume any desired shape by a few blows from a hammer. An ordinary tack-hammer and flat-iron will answer the purpose of hammer and anvil, if one has nothing better at hand. A very convenient electrode for anterior hypertrophies in the nose is made by hammering one side of the bent platinum wire flat and leaving the other round. Hammering increases the resistance; so that the flat side of the wire will heat up more quickly than the round, and there is no danger of singeing the septum when such a knife is used. When it is desired to make a puncture rather than a cut, or cut only with the point of the knife, the platinum wire should be left nearly round, and only the very end or bent portion hammered. Then only the very end may be made red-hot. Such electrodes are convenient for cauterizing the middle turbinated bones or hypertrophied tonsils.

Galvano-cautery knives, such as described, are used in the Nose and Throat Dispensary of the University Hospital and in the private practice of Dr. Carl Seiler, by whom they were devised, and also in my own. A physician can make them with platinum tips of many shapes and sizes, that will heat up at the exact part desired, and will find them more practical than those for sale, while their cost in money is almost nothing.

1346 Spruce Street.

Society Reports.

AMERICAN OTOLOGICAL SOCIETY.

TWENTY-FIRST ANNUAL MEETING, AT NEW LONDON, CONN., JULY 17, 1888.

MORNING SESSION.

The Society was called to order by the President, Dr. J. S. Prout, Brooklyn, who alluded in his opening address to the loss sustained by the Society in the death of Dr. C. R. Agnew, of New York, and suggested that action be taken.

On motion, Dr. Gorham Bacon and Dr. W. H. Carmalt were appointed to prepare an appropriate minute on the subject.

Drs. Green, Theobald, and Carmalt were appointed as the Business Committee.

Dr. E. Williams, of Cincinnati, on account of failing health, presented his resignation. This was accepted, and, on motion of Dr. Carmalt, the by-laws were suspended, and Dr. E. Williams was elected an honorary member of the Society.

Dr. W. H. Carmalt presented the report of the Committee of Conference on the Congress of American Physicians and Surgeons.

The report was accepted, and it was decided that, when the Society adjourns, it adjourn to meet at the Arlington Hotel, Washington, D. C., September 18, 1888, at 11 A.M.

On motion of Dr. Green, it was decided that the meeting should be strictly for scientific matters, and should not be regarded as

a business meeting, and that it should not take the place of the annual meeting.

The reading of papers was then taken up. Dr. S. Sexton, New York, read by title a paper on

Periostitis Externa of the Mastoid

and one on

Some of the Indications for Excision of the Drumhead and Malleus.

Dr. C. H. Burnett, of Philadelphia, read a paper on a

Case of Aural Vertigo (Menière's disease)

which was relieved by excision of the membrana tympani and malleus.

The patient was a young unmarried woman, 37 years of age, who six years previous had been under treatment for chronic naso-pharyngeal catarrh and chronic catarrh of the left middle ear, accompanied with difficulty of hearing, tinnitus aurium, and a sense of fulness in the affected organ. Treatment of the catarrhal disease of the ear produced no benefit. After the lapse of six years, the symptoms already named grew worse, and there was superadded marked aural vertigo. The membrana tympani in the line of the malleus-handle was found adherent to the promontory, and the consequent retraction of the entire chain of bones was held to be the cause of the aural vertigo and of the sense of fulness and of the tinnitus.

The operation of excision of the membrana tympani and the malleus was performed under ether May 21 last, with entire and immediate relief to the aural vertigo (which before had often been sufficient to cause the patient to hold to a lamp-post for support), and to the sense of pressure and tinnitus, which good result has been maintained to the present time. The hearing was practically unaffected by the operation. The incus was detached from the stapes, but could not be removed, as it slipped into the attic, and grappling for it is not advisable on account of the risk of irritation. Its removal, furthermore, would have no effect in the result of the operation.

Dr. J. O. Tansley, New York, in opening the discussion, said: I have now under my observation a girl on whom this operation was performed some eighteen months ago. When she came to me, the whole internal canal was filled with polypi, and she presented serious brain-symptoms. I took out all the polypi and found a portion of the drum remaining, and above a localized necrosis, into which a probe passed at least one-fourth of an inch. The patient has been under observation every day for two months. The local necrosis is healed and she is doing well. There are still some brain-symptoms. It seems to me that this is a very serious operation, and I should hesitate some time before performing it. In this case the result seems directly traceable to the operation.

Dr. C. H. Burnett, Philadelphia: My patient did not remain in Philadelphia, but I was informed that, two or three weeks after I saw her, a discharge appeared. I think that there is still a slight discharge, but the membrane is forming. In another case a slight discharge appeared soon after the operation, but ceased after the membrane had reformed. The case reported by the last speaker was not one of the class to which I have alluded. The operation was evidently not properly performed, if there remained a portion of the membrane and there was necrosis. I have not found this a dangerous operation. No one has reported bad results from this operation, properly performed.

Dr. Chas. J. Kipp, Newark: This operation has been performed a number of times by a foreign operator for the relief of tinnitus and vertigo, but he has given it up because it did not relieve these symptoms satisfactorily. He, however, did not have any bad results.

Dr. S. Sexton, New York: I have performed this operation between fifty and one hundred times in the past few years, and have obtained decided benefit in a number of cases of tinnitus and other subjective symptoms. I have known of no case in which there was aggravation. In many cases where there has been no marked tinnitus, the distressing sense of pressure has been overcome. The tinnitus is not always relieved by the operation. Dr. Burnett has referred to the closure of the drumhead. My principal endeavor has been to avoid reformation of the drum membrane. In a number of cases where this occurs the good hearing is lost. I have prevented this by the application of a solution of salicylic acid in ether to the margin of the closing membrane. This has succeeded even where the membrane has closed down to a minute opening. In regard to the purulent case to which allusion has been made, I have operated on a number, and, on the whole, they are the more satisfactory cases.

Dr. B. Alex. Randall, of Philadelphia, was invited to take part in the discussions of

the Society. He said: It may be that in Dr. Tansley's case the operation was done for the necrosis. The presence of polypi of the size referred to indicates great neglect, and the results are more probably attributable to this neglect than to the operation.

Dr. A. H. Buck, of New York, read a paper on

Reflex Influences in the Production of Naso-Pharyngeal Catarrh.

The object of the paper was to call attention to those comparatively remote exciting causes of naso-pharyngeal catarrh which act, so far as it is possible to explain their mechanism, through the intervention of the vaso-motor fibres of the sympathetic nerve. We know, he said, little of the direct exciting causes of naso-pharyngeal catarrh. The most common indirect cause is chilling of the surface of the body. According to certain authorities, affections of the teeth should rank next in order of frequency. The author had, however, seen very few cases in which dental disturbance played the part of a promoter of naso-pharyngeal catarrh or of aural disturbance. Some of those indirect causes which he had observed were then enumerated. Irritation of the gastro-intestinal canal is, in not a few instances, a strong exciting cause of naso-pharyngeal catarrh and of all the aural disturbances growing out of such a catarrh. A man, 45 years of age, had for years been more or less a sufferer from naso-pharyngeal catarrh, with tinnitus aurium and slight impairment of hearing; and, more recently, he had begun to suffer from feeble digestion. He noticed that after indulgence in certain articles there would be abdominal discomfort, and, at the same time, marked exacerbation of the naso-pharyngeal catarrh. So long as the offending substance was in the stomach, there was only a slight sense of discomfort; but, in the course of three or four hours, a slightly painful peristaltic movement would set up in the bowels, simultaneously the secretion from the vault of the pharynx would become unpleasantly active, and the tinnitus would increase. This condition would last for an hour, and then the naso-pharyngeal catarrh would return to its usual state. These attacks were accompanied with the escape of large quantities of gas by eructation. In many patients, usually men between 40 and 60 years of age, when we have reason to believe that the gastro-intestinal tract is habitually in a state of greater or less irritation, we find the faucial mucous membrane red and swollen. In these cases the disease which claims chief attention is the gastro-intestinal affection.

Reflex influence involving the vault of the pharynx and the ear may emanate from more distant sources. A woman, 40 years of age, complained of distressing tinnitus involving both ears. There had been mild naso-pharyngeal catarrh, from time to time, for many years. At times she was almost entirely free from tinnitus. I always, he said, succeeded in giving prompt relief by applying a moderately strong solution of silver nitrate, with a mop of absorbent cotton, to the vault of the pharynx. After a time these failed to give relief. It was then learned that for many years she had suffered with pain in the pelvic regions and back, and that at this particular time she was suffering in a more marked degree. A specialist was then consulted, and it was found that there were retroversion of the uterus and subacute parametritis. These conditions were removed and the tinnitus disappeared without treatment to the vault of the pharynx.

The author stated that he had spoken of these as indirect causes—that is, as factors competent to aggravate a pre-existing but perhaps latent catarrhal disease; but he saw no reason why these reflex influences might not in certain cases play the part of direct exciting causes. He considered it impossible to demonstrate the correctness of this belief, and therefore preferred to adopt the view which assigns to them a less independent *rôle*.

Dr. J. O. Tansley, New York, in opening the discussion, said: I meet with many cases of naso-pharyngeal catarrh in young girls, 15 to 20 years of age, who are decidedly anæmic and chlorotic, and who suffer with constipation. I have found that the latter is the cause of the catarrhal symptoms.

Dr. S. D. Risley, Philadelphia: It is pretty generally admitted that nasal and pharyngeal diseases are especially liable to occur in persons of a gouty diathesis. Naso-pharyngeal disease is one of the most uniform manifestations of lithæmia. In regard to the symptoms detailed in the first case of Dr. Buck, I should suggest that the digestive disturbance was probably associated with a lithæmic condition.

Dr. C. H. Burnett, Philadelphia: I have seen a number of cases of tinnitus without deafness, due entirely to dyspepsia. The use of nitrate of silver has been referred to. While this may be of service in other locations, I think that it is the worst application that can be made to the nose or the naso-pharynx. Its use will be followed

sooner or later by sclerosis and atrophy. It will apparently cure a hypertrophic catarrh, but the case comes to the rhinologist later, with a marked atrophic process in the mucous membrane. I have entirely abandoned the use of nitrate of silver in affections of the nares.

Dr. S. Sexton, New York: I have seen many cases in which irritation in the mouth has been the cause of naso-pharyngeal catarrh and aural symptoms. A woman was brought to me with intense pain in the ear and the head. There was nothing in the condition of the ear to account for these symptoms. Examination of the mouth showed that she was wearing a plate to bring the teeth closer together. The gum was intensely inflamed, although the patient complained of no discomfort. The removal of the plate caused a disappearance of the pain in the ear and head. I have seen many such cases.

Dr. J. O. Tansley, New York: I have seen many cases in which irritation of the teeth caused aural symptoms. I agree with Dr. Burnett that nitrate of silver should not be used in the nasal cavity. I have not made such an application for a number of years. There is in catarrh an increased thickening of the basement membrane; this tends to contraction, and the tendency to contraction is increased by the use of nitrate of silver. I employ such agents as induce an exosmosis.

Dr. J. F. Noyes, Detroit: This paper brings up the fact that it is important that in our special practice we should consider general practice. I have always recognized these so-called reflex causes, and have treated cases by searching out these causes. A remarkable case came under my notice, in which a woman after confinement developed naso-pharyngeal catarrh. There was profuse secretion. The trouble continued for a year in spite of treatment. Finally she passed into the hands of a gynecologist. The cause was then discovered, and treatment of the uterine disease cured the naso-pharyngeal disease.

Dr. Samuel Theobald, Baltimore: I think that where atrophy follows hypertrophic catarrh it is the result not of the application of nitrate of silver, but of the the continuance of the catarrh. I question whether solution of nitrate of silver, ten to fifteen grains to the ounce, will produce sloughing. I regard this agent as a valuable application in disease of the nasal membrane.

Dr. Chas. J. Kipp, Newark: I agree with Dr. Theobald as to the value of nitrate of silver. I rarely use it in a stronger solution than twenty grains to the ounce, and neutralize it afterward with salt water.

Dr. Henry D. Noyes, New York: I have frequently noticed the connection between the lithæmic condition and certain affections, not only of the naso-pharynx, but also of the external auditory canal. There are certain eczematous conditions associated with the gouty diathesis.

Dr. F. P. Capron, Providence: I have seen a number of cases of so-called hay-fever in which the premonitory symptoms were those of indigestion. For two or three weeks before the time of the onset of the regular attack, the patient would complain of digestive disturbance.

Dr. Huntington Richards, of New York, read a paper on a case of

Polypoid Angioma of the Ear.

The patient, a girl 6 years of age, came under observation May 4, 1888, with profuse fetid otorrhœa, unaccompanied with pain, and dating only from the preceding February. Hearing seemed good. No bleeding from the ear had ever been observed. The general health was excellent.

Examination of the affected ear revealed a polypoid mass, almost occluding the canal. The color was deep purplish-red. A considerable portion of the tumor was at once removed with the snare, and the remainder of the growth was extracted on the following day, leaving a small pedicle attached, seemingly to the outer surface of the drum membrane, close to the prominence formed by the short process of the hammer. This stump was cauterized with chromic acid. Hemorrhage from the cut surface of the growth was unusually profuse at both operations. The child's hearing is now excellent, although both membranes are depressed and of a dark grayish-red color. The removed growth was pronounced to be an angioma. Three micro-photographs, showing the appearance of the growth, were exhibited.

Dr. Huntington Richards, of New York, reported a case of

False Drum Membrane.

The patient, a man 21 years of age, was totally deaf in the affected ear. There was a vague history of an attack of otitis media in early childhood. The other ear presented the common appearance of otitis media purulenta chronica. Examination of the ear that was not discharging showed a mem-

brane occluding the canal. It differed from the normal drum membrane in color, shape, relation of its plane to the long axis of the canal, and in apparent thickness. It varied little in color from the skin lining the canal. The surface was perfectly smooth.

A triangular opening was made through this membrane. The operation caused no pain Through this opening, it was seen that there was no drum membrane, but that the inner wall of the tympanic cavity came into view. The hearing was only slightly improved. When seen a few days later, no discharge had appeared. Since that time he has not returned to the infirmary.

DR. S. SEXTON, New York, in opening the discussion, said: I have seen several such cases as that described in the last paper. In one seen last year, I removed the membrane, and then took out the malleus and incus. This case made a good recovery. The improvement in hearing was decided. I would suggest this operation, in such cases, as a possible means of improving the hearing, for it opens up the tympanic cavity, which is a good condenser of sound; and, in the second place, to prevent the accidental occurrence of inflammation in these parts when it might be difficult to obtain relief.

DR. T. Y. SUTPHEN, Newark: I have seen one or two cases of this trouble, which seems to me to be due to cicatricial closure of the external canal. It seems to me that the condition would be best spoken of as cicatricial closure of the canal.

DR. CHAS J. KIPP, Newark: These cases result from granulations, and I have watched the formation of these membranes. In treating this condition, I have incised the membrane and put in laminaria bougies, and the false membrane has disappeared.

DR. A. MATHEWSON, Brooklyn: A woman was under my care for some time with an eczematous condition of the external meatus. She then passed from observation. Some time later she presented herself, with a disk-like closure of the external canal. This was not complete, but there was a small opening in the centre. I dilated this opening with laminaria bougies, and the ear was left in perfect condition.

DR. SAMUEL THEOBALD, Baltimore: The members may recall a case that I reported in which there was occlusion of both external canals. There was a history of suppuration, and no doubt there was ulceration and gradual closure.

DR. CHAS. H. BURNETT, Philadelphia: I have seen several of these cases of dermoid diaphragms in the canal. Three of these were in private practice. One was in an old man, and it remained imperforate during the whole time he was under observation. The other cases were perforate when they came to me. There was slight discharge, which I checked, and the perforation healed. In one case the discharge returned after a short time, and the perforation reappeared. Under treatment it healed, and I have reason to believe has remained closed since—a period of four or five years. In the other case it remained closed for a year, when the opening reappeared with slight discharge. The discharge ceased under treatment, and the opening closed and has remained closed.

DR. B. ALEXANDER RANDALL, Philadelphia: In the case of a boy, 12 years old, in which there was closure of the meatus as a result of injury with forceps during labor, I excised the diaphragm. The cavity was thoroughly washed out. The case was then treated in the ordinary way. The hearing obtained was certainly one-fourth of the normal.

EVENING SESSION.

DR. J. B. EMERSON, of New York, read a paper on

The Flexible Catheter as a Drainage-Tube,

and cited several cases exhibiting the use of the flexible catheter as a drainage-tube. He said that with deep-seated inflammation of the auditory canal or mastoid cells, maintenance of drainage through a fistula is a necessity, and to prevent closure of the fistula, either by granular growth or natural healing, is important. Dr. Emerson recommends the use of the flexible catheter as generally the best means to employ, and states his reasons to be the comparative comfort and safety, together with convenience of control by both surgeon and patient. The efficiency observed in the use of the flexible catheter was also referred to.

DR. O. D. POMEROY, New York, in opening the discussion, said: Some years ago I recommended the use of soft rubber tube in suppurative otitis in little children with closure of the canal with no changes except swelling. The canals are so small that the tube cannot be pushed in in the ordinary manner. A piece of small tubing was hooked to the extremity of a notched probe, which passed through it. The tube was then drawn tight, thus reducing its size. In this way it could be readily introduced. When the tube was released it tended to resume its proper size, and the probe was withdrawn. Almost all these cases did well.

Dr. Chas. J. Kipp, of Newark, reported three cases of

Transient Bilateral Horizontal Nystagmus in connection with Purulent Inflammation of the Middle Ear.

Case I.—A young man, 21 years of age, had had otorrhœa seven or eight years previously. Three months before coming under observation he had an acute exacerbation and suffered intensely with pain in the ear and head. The otorrhœa much diminished. Two or three weeks later he came, stating that he saw objects double, was dizzy, and could not walk. There was marked nystagmus in a horizontal direction. The vertigo and nystagmus continued four days. With the cessation of the nystagmus the vertigo disappeared.

Case II.—A young man, treated six years previously for acute otitis media purulenta ending in recovery, appeared in March with an acute attack. Paracentesis was performed. The pain, however, continued for a long time. Finally swelling developed behind the mastoid, and this was accompanied with several epileptiform attacks. One day, pressing on the swelling, pus poured from the canal. With this there was a sudden jerk of the head and nystagmus. The latter continued for about ten minutes. This was produced every time pressure was made on the mastoid. The mastoid was subsequently opened. Since then there has been improvement.

Case III.—A young man, after exposure, was seized with intense pain in the ear, followed by otorrhœa. When he came under observation there was great pain. This was not relieved by treatment, but continued two or three weeks. Then a swelling appeared below the ear. This was incised and a large quantity of pus evacuated, with relief to the pain. Some days later, while washing out the cavity, the fluid came through the ear when considerable force was used. At the same time there was a jerk of the head and nystagmus continuing several minutes. This could always be produced by making a forcible injection.

Dr. O. D. Pomeroy, New York, in opening the discussion, said: Reference has been made to epileptiform symptoms in one of the cases. I have recently seen a case of epilepsy in which the exciting cause was suppuration of the middle ear. With recovery from the ear-disease, the convulsions ceased and have not returned.

Dr. J. O. Tansley, of New York, exhibited

An Improved Aural Snare.

The snare was devised to overcome the objection to the ordinary Wild snare, which is the little jerk and rebound of the instrument when the growth is cut through. The instrument exhibited consists of a small tube through which the wire passes, to be connected with a small bobbin, by the turning of which it is gradually shortened.

A paper by Dr. S. Sexton, New York, on

Foreign Bodies in the External Auditory Canal

was read by title.

The Society then went into executive session, and the following officers were elected:

President, Dr. J. S. Prout, of Brooklyn; *Vice-President*, Dr. Gorham Bacon, New York; *Secretary and Treasurer*, Dr. J. J. B. Vermyne, New Bedford, Mass.; *Committee on Membership*, Dr. A. Matthewson, Dr. D. B. St. John Roosa, and Dr. John Green; *Delegate to Congress of American Physicians and Surgeons*, Dr. W. H. Carmalt, New Haven; Alternate, Dr. G. Bacon, New York.

The Society then adjourned to meet at the Arlington Hotel, Washington, D. C., Tuesday, Sept. 18, 1888.

PERISCOPE.

Case of Sextuple Pregnancy.

An extraordinary case of multiple pregnancy recently occurred at Castagnola, near Lugano, in Switzerland. A woman, 36 years old, wife of the local *sindaco*, was delivered on May 4, of six children—four boys and two girls—at a birth. They were born alive, though prematurely, but they all died in a few seconds. Their united weight was only three pounds thirteen ounces, and the length of their bodies, which were perfectly well formed, varied from 8¾ to 10¼ inches. The case, which is said to beat all previous *authentic* records of human fecundity, is vouched for by Dr. Francesco Vassalli, of Lugano, who attended professionally on the occasion, assisted by Drs. Bianchi, Reali, and Solari, of the same place. Dr. Vassalli has reported the case in detail in the *Gazzetta Medica Italiana-Lombardia* of June 2, and an abstract of his account may be interesting. It has been stated that the woman had previously borne seven children, in two batches of four and three respectively, but this is inaccurate. She was married only two years ago to a

widower, 41 years old, who had ten children by his first wife. There were no twins among these, but it appears that he has five cousins—brothers—each of whom is the father of twins. A sister of the patient has also borne twins on one occasion. The patient herself, in the first year of her marriage, had a boy who is now fifteen months old and in perfect health; she suckled him for eleven months, when she became aware that she was again pregnant. The catamenia had reappeared in the seventh month of her nursing, and the last period began on December 4 and lasted six or seven days; conception must therefore have taken place in the early part of January. The patient suffered severely almost from the first from weakness of the legs and vomiting, and in the fourth month the abdomen was as large as it usually is at full term. On the morning of May 4 (being about the 115th day of pregnancy), whilst doing some light outdoor work, she felt a sudden desire to empty her bowels, and, on squatting down for the purpose, there was a gush of hot liquid from the vagina, which she recognized as amniotic fluid. She immediately went home, walking with much difficulty, on account of something which she felt protruding from the vulva. A neighbor was called in, who found a tiny fœtus hanging by the foot, which was speedily delivered. All this occurred within a few minutes. Dr. Vassalli was then summoned, and found the os only partially dilated, whilst an unruptured sac could be felt through it. There being no urgent symptoms, the patient was kept quiet, and, after passing a fairly good night, she got up the next morning to attend to her household duties, feeling quite well. Toward mid-day, pains came on with increasing violence, and she lost a good deal of blood. Seeing that abortion was inevitable, Dr. Vassalli thought it advisable to hasten delivery. He therefore punctured the membranes and extracted a small fœtus by the foot. After tying the cord, he followed up the placental end with his right hand till he came to another sac of fluid; this he also punctured, and delivered a third fœtus. Two more were extracted in the same way, the whole procedure occupying two hours. Fresh hemorrhage now occurred, and the uterus did not contract. Dr. Vassalli therefore tied all the cords together and made gentle traction, at the same time applying pressure to the womb. This failing, he introduced his hand into the uterus and tried to bring away the placenta, which, however, he only succeeded in tearing, with the result of making the bleeding more alarming. Having no hæmostatics at hand, he sent for assistance, keeping his hand in the uterus meanwhile as a plug. It was four hours before help arrived; the after-birth was then got away with some difficulty, a sixth fœtus, enveloped in its own membranes, being found attached to it. The patient bore the trying ordeal very well, and made a good recovery. The heads of the fœtuses were rather large relatively to the bodies, and the eyes were covered with the pupillary membrane. The genital organs were completely differentiated. There was only one placenta. The specimen has been placed in the museum of the R. Scuola Ostetrica, at Milan. Dr. Vassalli calls attention to the curious fact that Castagnola is rather remarkable for multiple births. From the official registers, it appears that in a population of 585, from January 1, 1876, to May 10, 1888—that is, 13 years and 4 months—there was a total of 247 births. Of these, 228 were single and 19 multiple, the latter consisting of 5 cases of twins, 1 of triplets, and the present one of *sextuplets*. The proportion of twin births, therefore, was 1 in 45, instead of Schröder's estimate of 1 in 89; and of triplets, 1 in 228, instead of 1 in 7,910.—*British Med. Journal*, June 9, 1888.

Double Gun-shot Wound of Brain; Trephining; Recovery.

Dr. George R. Fowler, Surgeon to St. Mary's Hospital, reported this case to the Brooklyn Surgical Society, February 2, 1888: The patient, a man 30 years old, entered St. Mary's Hospital May 13, with a gun-shot wound of the head. The pistol was fired at short range, the muzzle almost touching his forehead. The first bullet entered the frontal bone a little to the left of the median line; the second entered at the inner canthus of the right eye, tearing away the lower and posterior portion of the frontal sinus of that side. He was unconscious when he came into the hospital. After making a crucial incision and laying bare the bone, it was found that a compound fracture of the frontal bone had been sustained, the bullet having passed directly downward, perforating the dura and being lost in the cerebrum. The bullet was from a 32-calibre revolver, and the opening in the dura was about the size of a little finger. Some portion of the frontal bone, which was driven into the brain, was removed with the forceps, and was found to be stained with the lead of the bullet.

It was difficult to trace the course of the

second bullet, but the posterior wall of the right frontal sinus was entirely destroyed, and portions of that were also taken out from the cerebrum. A portion of brain-matter escaped. The portion of the frontal lobe resting on the roof of the orbit of this side was destroyed. There was a considerable laceration of the brain at this point. After removing the débris, Dr. Fowler tried to locate the balls by drawing an imaginary line across, as nearly as possible, in a line with the pistol, and trephining posteriorally at a point where that line would meet. After trephining the occipital bone, a slender needle was passed into the brain substance, making the needle pass systematically in lines radiating from this latter opening as a central point to all portions of the brain as nearly as could be reached, but no trace of the bullet could be discovered. The openings were then closed.

In front, after removing the débris, about a dozen strands of catgut were passed into the wound, coming through the frontal bone, or rather through the tissues covering the frontal bone; and half a dozen strands of catgut were also passed down through what remained of the frontal sinus to afford an escape at this point. The left nasal cavity was irrigated with mercuric iodide solution, cleansed and stuffed with iodoform cotton, and antiseptic dressing applied. The patient's after-history was entirely uneventful. He never even complained of a headache. He was up and about, assisting in the wards of the hospital as a ward orderly, in three weeks, and left the hospital June 7, fully healed and in possession of all his faculties. There is a little difference between the pupils of the two sides, the left being comparatively larger than the right. This is the only indication of any disturbance, if, indeed, this is due to the injury.

About the 5th of last September he noticed some discharge where the upper opening had been, and upon exploration necrosed bone was found, which could be discovered from both openings. The parts were reopened, a small portion of the bone was removed from the lower opening, and it was thought that that would end the trouble. But it did not, and about four weeks afterward he again appeared with the upper opening still discharging pus. Another exploration revealed the existence of necrosed bone. A long incision was then made, connecting the two openings, from the central portion of the frontal bone down to the site of the old wound and to the inner canthus of the left eye. A sequestrum, three-eighths of an inch in length, was found after chiseling away a part of the frontal bone. There was also found lying at that point a strong fibrous partition between the fragments of bone and the cavity of the skull beyond, showing that nature had walled out, as it were, this portion of necrotic bone and left it lying there loose. It was removed, catgut drains were placed in position, and the patient made a rapid and complete recovery. He suffered —at the time of the report—from nothing except, perhaps, a little mental depression, which may or may not be the result of the original injury. Dr. Arthur Mathewson examined him and stated that the difference in the pupils was probably a congenital defect, and had nothing to do with the injury. Both bullets are still somewhere in the brain. Dr. Fowler has made no attempt to locate them with the induction balance. This case is an example of the toleration of the brain-tissue to the infliction of considerable traumatism, and to the presence of foreign bodies.

Dr. Wight, in opening the discussion on Dr. Fowler's communication, said that in 1864, on board the hospital transport "Western Metropolis," he saw a man sitting in a chair with a hole right in the middle of his forehead, about an inch and a half above his eyebrows. The surgeon in charge had an excellent probe and was trying to get it into the hole. As Dr. Wight came up, he was handed the probe. He saw there was no hole in the skull, and learned that it was a pistol-bullet, which had been fired at a distance of not more than ten or a dozen feet. He handed the probe back to the surgeon, and put his finger upon the back of the man's head and felt the bullet there. He simply made a little incision at that point, and the bullet dropped out.

In another case, some twelve years ago, he saw a boy eleven or twelve years of age, and inclined to hydrocephalus, who, on the 4th of July, while playing, with another boy, with a ten or twelve inch cannon, had a stone as large as the size of an almond shot into his head. It entered the skull just immediately above the groove for the right lateral sinus. Dr. Wight saw him on the 5th of July, and, after exploring it carefully, trephined, but could not find the stone. The boy lived some eight or ten years, and then finally died of tuberculosis of the lung. He made good progress in his studies, and was a bright, active, business lad. Whatever became of the stone he cannot tell.—*Brooklyn Medical Journal*, June, 1888.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

MEDICAL BULLETINS.

In a recent number of the *Nation*, attention is called, in a sharp editorial, to the modern practice of issuing what are called medical bulletins in regard to the condition of distinguished patients. The editor of the *Nation* adds his own condemnation to that of Miss Frances Power Cobbe, in a late number of the *Contemporary Review*, and both point out clearly some of the most objectionable features of the too detailed reports which are often sent out nowadays by medical men who are in attendance upon eminent or famous persons.

This practice is not confined to any one country, but it is sufficiently common in America to deserve notice. Within ten years, we have had, at short intervals, the details of the illness of a variety of persons exposed to the public gaze. Presidents, generals, actors, authors, and even criminals have furnished subjects for these reports, and the community has been imperfectly instructed in regard to matters of pulse, respiration, and temperature, which can do it no good, and in regard to excretions and discharges, which are nothing if not disgusting.

Some of the lay critics have intimated that the medical bulletins are intended or expected to act as an advertisement of the physicians or surgeons in attendance. This is a natural inference, although we are convinced that it does injustice to some of those who have issued them. Of course, in so far as the criticism is just, it exposes a very contemptible motive; but we may leave it to those who think it needs to be made prominent to urge it as they think best. If it were wholly unjust, there would still be much to be said against the medical bulletins of the present day.

No one who has carefully studied this matter can doubt that one effect of bringing the laity to the bedside of distinguished patients has been derogatory to the sanctity of illness, and has broken down the privacy which most sufferers long for; more than this, it has robbed dying men of the dignity which death usually confers, so that, to paraphrase what Miss Cobbe says, their last hours are not remembered as those of great and noble statesmen or soldiers, but as those of weak and wretched men. This is an evil which seems to us greater the more we reflect upon it.

Another evil due to the publicity given to the details of the sickness and treatment of distinguished patients is the comment excited in regard to the medical or surgical measures carried out by their medical attendants. The discussions in regard to the treatment of President Garfield had not faded from the public memory before the painful contentions in regard to the malady of Emperor Frederick of Germany came to increase distrust of medical acumen and surgical skill.

The most recent case in which medical bulletins have been conspicuous has carried the possibilities of evil in a new direction, for it has furnished an opportunity for the venders of a secret remedy most ingeniously to turn to their own account the credit due to a well-known and very simple restorative agent.

These are some of the evils for which the modern practice of issuing medical bulletins is responsible. They are beginning to attract attention from thoughtful men outside of the medical profession, and we may be sure that they will bring our profession into contempt, unless they be soon corrected. It may not be necessary to adopt the suggestion of the *Nation*, that the medical societies take the matter up and formulate rules to govern the preparation of reports of the progress of patients in whose welfare the world has a deep interest; but something must be done to strip them of the appearance of advertising and to purge them of details which are useless or offensive in their nature.

One thing our non-medical fellow-men ought at least to know, namely, that what they condemn is equally deprecated by the members of the medical profession, and that, while we regret the necessity for their criticism, we accept their rebuke and hope to be profited by it.

EARLY OVARIOTOMY.

The question of early ovariotomy is one of importance; and the greatly lessened mortality after ovariotomy in recent years is at least partly due to earlier operation. Dr. Sutton, in the REPORTER, June 2, 1888, forcibly insists upon this point; but, from the illustrative case which he reports, it might be inferred that the advantages consist in the ease and rapidity with which the operation can be done. A short operation unquestionably favors recovery, not only by the less amount of shock experienced, but by the smaller number of germs which gain access to the peritoneal cavity. Adhesions are much less apt to be encountered in cases operated upon early, than in those in which operation has been deferred.

But there are other and weighty reasons why ovariotomy should be done early. Many dangers and much suffering are thus avoided. Formerly, it was considered advisable to delay operation until the tumor became abdominal, until it reached the umbilicus, or until the general health became affected. The soundness of this opinion is no longer admitted. It was urged in favor of waiting, that thereby the tumor would come in relation with the abdominal wall, that the intestines would be displaced, and hence would be in less danger of injury from the knife of the operator; but, as the abdomen is opened daily for disease other than tumors, without injury to the intestines, the force of this argument is lost. It was urged with more reason that intra-abdominal manipulations are rendered easier in late operations, owing to the stretched condition of the abdominal walls; but experience in abdominal section for pelvic inflammations has largely removed the fear of tense recti muscles, and has demonstrated the comparative facility with which intra-pelvic manipulations can be made. The supposed greater difficulties in the technique of early operations no longer influence the surgeon.

The undoubted semi-malignancy of varieties of ovarian tumors, formerly considered benign, is a strong indication for early operation. A. Doran and others have repeatedly observed the development of malignant tumors in the abdomen after the extirpation of dermoid tumors. Numbers of cases of proliferating glandular cystoma have been reported in which, after ovariotomy, gelatinous masses formed in the abdominal cavity and adhered to a large part of the peritoneum—pseudo myxoma peritonei. In all these cases, the ovarian tumor contained tough gelatinous material, either mainly or exclusively. As is well known, papillary cystomata are very apt to infect the peritoneum and cause secondary

papillomata. This may occur spontaneously, either from the separation of papillary masses which become grafted upon the peritoneum, or by rupture of the cyst and diffusion of its contents throughout the peritoneal cavity; or infection may occur during ovariotomy. There seems to be very little doubt that the peritoneum may serve for the implantation and further growth of particles of all kinds of ovarian tumors, and that this is especially apt to happen, apart from malignant growths, in papillary cystomata and proliferating cysts with thick non-fluid contents. Were not the operation of tapping ovarian cysts already condemned or at least restricted to very exceptional cases for other sufficient reasons, this danger of infecting the peritoneum and causing secondary tumors might be urged against it. Early ovariotomy not only prevents the breaking-down of the general health which is always caused by long-standing ovarian tumors, but saves the woman from dangerous intercurrent accidents and diseases which at any time in the history of these growths are apt to occur. Torsion of the pedicle probably occurs in eight per cent. of all cases, and is especially common in dermoid tumors and tumors with long small pedicles. Hemorrhage into the cyst, at times rapidly fatal; gangrene or suppuration of the tumor, with acute diffuse peritonitis are the usual results of this accident, and, since the abandonment of tapping, are seldom met with from any other cause. Rupture of ovarian tumors has been repeatedly observed, though it is not so common as rupture of broad ligament cysts. No reaction may follow, but peritonitis is common after rupture of dermoids, or colloid tumors if hemorrhage occurs; and metastatic tumors may develop, especially after rupture of papillary cysts.

Solid tumors of the ovary are almost always malignant, hence early removal offers the only hope of radical cure.

Intra-ligamentary cysts form an exception to the rule of early operation. Although many of these tumors are papillomatous, the extreme difficulty and danger of removing them early, while they are entirely intra-pelvic, are considered at the present time a contra-indication to operation; but, as great improvement in the technique of the removal of these growths has been made in the past few years, it is to be hoped that further progress will enable the surgeon to remove them with safety, if not with facility. As a further exception, it should be mentioned that not a few surgeons refuse to operate on intra-pelvic ovarian cysts, which grow slowly or not at all, without special indications.

GLYCERINE SUPPOSITORIES FOR CONSTIPATION.

We have already, in the REPORTER, February 4, 1888, directed attention to the injection of small quantities of glycerine into the rectum as a means of overcoming constipation. This method, somewhat extensively employed in Germany, it is often by no means convenient to carry out, because few syringes are available for injecting such small doses as fifteen drops of any medicament. A better idea has been suggested, as pointed out in the REPORTER, July 28, 1888, by Boas, in the *Deutsche med. Wochenschrift*, namely, that the glycerine be given in suppositories or capsules.

This method is simple, easy of execution, and is said to be very efficient. Just how the glycerine acts to produce a movement of the bowels is not clearly understood, but the testimony is practically unanimous that fifteen drops of pure glycerine introduced into the rectum will bring about a comfortable and satisfactory evacuation of the bowels.

With glycerine in plenty and drug-stores full of good capsules it ought to be easy for our readers to test the value of this method, which, if it is what it is claimed to be, must be very superior to the use of enemata or—in many cases—of purgative medicines given by the mouth.

A CROOKED WAY.

Our attention has been directed by one of our subscribers, a distinguished surgeon of this city, to a circular issued by a firm of instrument-makers, which bears the following notice: "Physicians sending their patients to us to have trusses fitted, or for elastic hosiery, will please send letter of introduction, that they may be *credited with the 25 per cent. discount allowed them.*"

This is such a manifest bid for trade, and becoming a party to it such a flagrant violation of the principles of the Code of Ethics, that we quite agree with our correspondent that it should receive the unqualified condemnation of all honorable physicians. Any such collusion as this circular intimates may exist between doctor and instrument-maker results in robbery of the patient, and is thoroughly dishonest.

PRECOCIOUS MENSTRUATION.

A curious example of precocious menstruation, to which we briefly alluded in the REPORTER, August 4, 1888, is given by Dr. H. Kornfeld in the *Centralblatt für Gynækologie*, No. 19, 1888. The subject was a child only three years old, addicted to masturbation, which had a periodical flow of blood from the vulvar orifice in the beginning of April, May, June, and July, exactly at the time when the mother menstruated. No injury of the vagina could be found to account for the bleeding.

This case is curious enough, although, like most others of a similar sort, it has no obvious scientific value. If the masturbation were energetic enough, it would not be remarkable that it should produce congestion too violent for the resistance of the delicate mucous membrane of the genitalia; but, if it were not very energetic, or if it were not exercised shortly before the appearance of the bleeding, the case would simply belong to the class of physiological curiosities which is more interesting than instructive.

Masturbation in children so young is not so rare as some may imagine. It is a singular fact that, in many children, the propensity to amuse themselves with manipulations of a portion of the body to which the hands naturally gravitate in sleep and in waking seems to be about as natural as to eat when food is brought near them. The youngest children will unblushingly handle their sexual organs in the presence of their elders, and often need patient care to prevent their forming a regular habit of masturbation.

It would be interesting to learn how often there has been a coincidence of this practice with precocious development of the signs of puberty, and whether the former gives rise to the latter, or *vice versâ*.

HIGHER MEDICAL EDUCATION.

The College of Physicians and Surgeons of New York has announced that it will receive no new students, except upon the basis of a three-years' course of study. This is a strong and courageous movement, which, we trust, will be crowned with success. One way to help it to succeed is for medical men who approve the plan of a full three-term curriculum to prefer schools which have adopted this plan to those which have not adopted it. Warm support from the members of the medical profession is deserved by medical schools which turn their backs on the pecuniary advantages of a low standard of medical education; and those who have at heart the best interests of the rising generation of physicians, as well as of the profession at large, ought to bear in mind the names of the schools which have decided to give their students the best preparation for the work which the present times can afford.

While on this subject, we would refer to an implied criticism on a medical school in Philadelphia, which was contained in an editorial in the REPORTER of June 30, 1888. At that time we said: "There are ways in which men who have not been studying three years in any medical school can get a degree from it."

This statement, though literally and

exactly true, was alluded to by one of our contemporaries as if it were unfair, and one of the professors in the school referred to, in a visit at this office, has made a personal explanation in regard to the matter. As our statement was made simply in the discharge of what we conceive to be our editorial duty, and not from mere prejudice, we are happy to be able to state now, on the authority mentioned above, that hereafter the Medico-Chirurgical College of Philadelphia will exact a three-years' course of study from all persons to whom it grants its degree, and no study in a preceptor's office will be counted as a part of this period.

We trust that the time is not far distant when all the medical schools of the United States will stand squarely on this basis, and when there shall be no way in which the degree of doctor of medicine can be obtained in this country except after three years of honest study. Heretofore this principle has too often been neglected or evaded; but we trust that both the neglect and the evasion will soon be things of the past, and thus the medical schools of the United States will, before long, occupy the position which they should in the eyes of the whole world.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

THE NATIONAL PHARMACOPŒIA OF UNOFFICINAL PREPARATIONS. First issue. By authority of the American Pharmaceutical Association. Large 8vo, pp. x, 176. Published by the American Pharmaceutical Association, 1888.

As the U. S. Pharmacopœia does not contain a large number of remedies which are frequently used by physicians, the American Pharmaceutical Association has done a most serviceable thing in gathering together in one book the formulæ of the most important of these omitted preparations, so that druggists everywhere may prepare them according to one standard. The preparations embodied in this book include a number which are largely known to the profession through the industry of certain manufacturing chemists. It is not likely that the knowledge how to prepare these drugs will materially interfere with the sale of those which have already secured a sale and established a reputation, but it is very desirable that medical men should know how they are made, and that all druggists should know how to prepare them in an emergency, or if it is not convenient for them to keep a supply on hand. The book is one which will be of great value to druggists, and it will certainly prove interesting and instructive to physicians who have the opportunity and inclination to study its pages.

A MANUAL OF THE MINOR GYNECOLOGICAL OPERATIONS. By J. Halliday Croom, M.D., F.R.C.P.E., Lecturer on Midwifery, etc., Edinburgh, Scotland. First American, from the second Edinburgh, edition. Revised and enlarged by Lewis S. McMurtry, A.M., M.D., formerly Professor of Anatomy in the Kentucky School of Medicine, etc., with numerous illustrations. Small 8vo, pp. 228. Philadelphia: Records, McMullin & Co., 1888.

This book contains a great deal of information in regard to the details of minor gynecological operations, among which, to our surprise, we find included those for vesico-vaginal fistula, incision of the cervix uteri, trachelorrhaphy, removal of fibroids, and laparotomy. This is giving much more than it promises; but the reader can hardly complain, because it is very well done. As a handy book of reference for medical students, and for practitioners who are unable to have and study the more systematic treatises on gynecology, it is a volume which is calculated to be of great service. It is clear and simple, and goes into many details which are not usually discussed in more pretentious works, but which often prove troublesome to those who have not had the advantage of preparing for their work in large and well-conducted clinics. The work of the author is excellently arranged and well carried out; and the work of the American editor makes the book better suited than when in its original shape to the needs of American medical men.

LESIONS OF THE VAGINA AND PELVIC FLOOR. By B. E. Hadra, M.D., Austin, Texas, with 83 illustrations. Small 8vo, pp. 329. Philadelphia: Records, McMullin & Co., 1888.

The author of this book states, in his preface, that it was originally intended to discuss malpositions of the "uro-genital system"—an unfortunately chosen term—which are called "descents or prolapse," but that, as the work of preparation progressed, he decided to include all gynecological injuries of the vagina and floor of the pelvis. The result has been a book which covers much ground of interest to the general practitioner, and which contains much sensible advice. In the main, the author's expressions are carefully worded, and he seems to have been especially on his guard against certain errors of statement which have long been found in works on gynecology. His views in regard to the mechanical principles involved in the structure of the different pelvic organs are sound, and his recommendations in regard to the treatment of the gynecological injuries discussed are trustworthy. His book is rather a very readable exposition of his own opinions than an elaborate treatise; but we believe it is calculated to be useful as well as interesting.

ESSAYS ON HYSTERIA, BRAIN-TUMOR, AND SOME OTHER CASES OF NERVOUS DISEASE. By Mary Putnam Jacobi, M.D. Large 8vo, pp. 216. New York: G. P. Putnam's Sons, 1888. Price $2.00.

This volume contains a collection of essays of different sorts, which have appeared at various times and in various places. The most considerable are those

named in the title; but the shorter essays are equally of great interest and value. The author is known as an unusually careful student and a clear writer, and, when dealing with such subjects as these essays treat of, she is at her best. The space which we can spare for our reviews does not permit us to point out, as we would like to, the admirable way in which she has studied the physiology of brain-tumors and aphasia, or the manifestations of hysteria, or the acumen she displays in a criticism on Dr. Bartholow's Cartwright Lectures on the "Antagonism between Medicines and between Remedies and Diseases"; but we can heartily commend to our readers a careful perusal of her work, which cannot fail to prove both interesting and profitable.

CORRESPONDENCE.

Introduction of Ether into Philadelphia Practice.

TO THE EDITOR.

Sir: The *Excerpta* from the Presidential Address of Dr. Levis, published in the MEDICAL AND SURGICAL REPORTER for July 21, suggest a thought in regard to the introduction of ether among remedial means used in Philadelphia practice. It was during the first half of the medical course of the University of Pennsylvania for 1847-48, which I attended as a second-course student, that I first saw ether administered by inhalation for the purpose of benumbing pain during an operation. Dr. William E. Horner was the operator, and the ether was exhibited under his superintendence. Great circumspection was observed in the process, thirty or forty minutes being consumed in producing full anæsthesia. The result was all that could be desired. I understood this to be the first use of ether for this purpose in Philadelphia. True it is that, during this entire winter, whilst I was in close attendance upon the clinics in the Pennsylvania Hospital, conducted by Doctors Randolph and Peace, no anæsthetic was employed, although many capital operations were performed; neither was it again resorted to during the winter's course at the institution first named.

ENOS T. BLACKWELL, M.D.

Cedarville, N. J.,
July 26, 1888.

Milk for Babies.

TO THE EDITOR.

Sir: Dr. E. A. Wood, in the REPORTER of June 30, has given some good suggestions on "Preparation of Milk in Summer."

In an article I have recently written, I have contended that the basis of our judgment with regard to cow's milk is wrong, since what is furnished by the milk-trade is not milk as it should be, but is an old, altered, and unfit milk for the babies when it reaches our city homes. Just now I have a terribly diseased child fed on milk bought at the grocery. Now, it is a fact that such milk is likely to be the worst kind of all. A milk-man, who formerly supplied my family, told me that all the old milk—too old to furnish for families for table use—he sold at the grocery to be used in cooking. Many a time have I been called to sick children who had been fed on such milk, and who began to thrive when fed on milk directly from milk-men. Not all grocery milk is of this kind, but it is sufficiently common to be dangerous and to suggest careful inquiry.

When practicing in the country, we did not consider it any very great calamity for a child to be deprived of its mother's breast. The child's life was not greatly imperiled thereby; the greatest disadvantage was the trouble entailed upon the mother, who had to care for the child. I think the country feeding on whole cow's-milk, or warmed with a little hot water, as also the experience of Dr. Lynde, of this State, quite controvert the notion that the excess of curd in cow's milk is in itself particularly harmful. I do not see why the same principle does not apply here as to the use of baked beans with adults. Chemistry teaches us that there is great nourishing quality in beans and peas, but it also teaches that the human digestive organs can extract only a portion of that nourishment, the remaining portion going off in the feces. If it should be contended that beans were not wholesome, because the stomach could not fully digest them, we should be obliged to give up eating "Boston baked beans." Why may not nutritive elements be carried off as waste from a child's stomach just as well as innutritious substances, so long as the child does digest enough of them for its own nourishment? If the child thrives on cow's milk, and yet does digest only one-half of the curd element, why is it not just as well for the balance to go off as waste as that we should feed with something else that is innutritious in order to make bulk for the proper stimulation of bowel movements? I think we have been mistaken here, and have condemned cow's milk because it was not wholly digested, curd being found in the stools.

My condemnation of cow's milk is not in consequence of the amount of curd it contains, but because the milk itself is not gen-

erally fresh and pure when given, especially in our cities; and I see no way of getting cow's milk which is fit for an infant's use until special efforts are made to produce and supply milk especially for infant-feeding—and this wholly outside of the present milk-trade. Let milk-men supply as they do now for common family use, but let special farms near our cities produce milk from good cows, fed on proper food and drink and otherwise properly cared for, and let the milk be properly cooled and served to the families having infants, directly after each milking.

Yours truly, E. CHENERY, M.D.

65 Chandler Street,
Boston, Mass.

NOTES AND COMMENTS.

Cholera Infantum.

Dr. Louis Starr, Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania, in a communication to the *Medical Standard*, July, 1888, says:

The large and frequent watery evacuations characteristic of this disease are such a drain upon the system that it is of the first consequence to replace the waste by food and drink and at the same time check it by appropriate treatment. The irritability of the stomach is a formidable barrier to alimentation, nevertheless every effort must be made to give food in small quantities and at short intervals. Should the infant be at the breast, it may be allowed to nurse for a few minutes every half-hour or hour. If hand-fed, it may be given the foods suitable in entero-colitis or in chronic vomiting, in such quantities as can be retained and at intervals corresponding in frequency to the smallness of the amount. Bits of ice and water should be allowed freely, even though they be rejected as soon as swallowed.

To check the diarrhœa, opium and astringents are necessary. A very serviceable formula is the following:

℞ Liquor morphinæ sulphat. . . . . f℥ i
Acid sulphurici aromat. . . . . ♏ xxiv
Elix. curaçoæ . . . . . f℥ iv
Aquæ . . . . . q. s. ad f℥ iii
M. Sig. One teaspoonful every two hours for a child six months old.

With this, two drops of laudanum, suspended in two teaspoonfuls of starch-water, should be given by the rectum every three hours. Two or three times daily a mustard plaster, one part of mustard to five of flour, must be applied over the whole surface of the abdomen, long enough to redden the skin, and the whole body should be sponged several times a day, with water at a temperature of 95° F.

The clothing, diapers, and person must be kept perfectly clean, the sick-room must be as large and airy as can be commanded, and the infant must lie upon a bed and not be constantly nursed on the lap. If it is possible, the patient should be sent early to the seashore or country, as this affords by far the best chance for recovery. Failing in this, morning and evening airings in a coach, or daily steamboat excursions, must be resorted to.

Stimulants are needed from the first, to ward off prostration—from five to ten drops of whiskey in a teaspoonful of lime-water may be given every two or three hours at the age of six months.

When collapse sets in, the quantity of alcohol must be increased, and, if the stomach can bear it, a combination of stimulants is useful, as:

℞ Spir. frumenti . . . . . f℥ iv
Ammon. carbonatis . . . . . gr. xxiv
Syr. acaciæ . . . . . f℥ i
Aq. menthæ pip. . . . . q. s. ad f℥ iii
M. Sig. One teaspoonful p. r. n.

The temperature must be maintained by hot flannel wraps and hot water-bottles, and the child be kept in a horizontal position and disturbed as little as may be. In this stage, astringents are still indicated, but opium must be used with great caution, or even discontinued entirely, when there are cerebral symptoms and semi-coma.

In the fortunate instances in which this plan is successful, it is still necessary to treat the succeeding diarrhœa, and to build up the general health by good food, tonics, and fresh air.

Gastrostomy.

Dr. Miles F. Porter, of Fort Wayne, Ind., reports in the *Journal of the Amer. Med. Association*, July 30, 1888, the details of a very interesting case in which he performed the operation of gastrostomy upon a young man, 19 years old, who had a stricture of the œsophagus in consequence of drinking some caustic liquid. The operation was conducted in two "times," the first comprising the opening of the abdomen and securing to the edges of the wound a portion of the stomach; the second consisted in making an opening into the stomach. Between these two steps of the operation, the patient had a violent attack of bronchopneumonia, which at one time led his medical attendants to despair of his life.

A Long Fast.

The story comes from Racine, Wisconsin, that John Zacher, after an abstinence from food for fifty-three days, has at last been induced to eat. The cause of his fast, it is said, was a disagreement with his father, with whom he has since come to an understanding. The physicians of Racine say it is probable that he will recover his health. They do not look upon his fast as an absolutely genuine one, insisting that he must have taken substantial nourishment, because it would have been absolutely impossible for him to have lived so long. Those who have been with him constantly, however, say he has taken no nourishment for fifty-three days. This account of his fast may not be true, but it is interesting. Succi, the Italian faster, has certainly proved that man may do without food for a much longer period than has hitherto been supposed possible.

The Effect of the Phylloxera.

It has been recently announced by the British consul at La Rochelle, that since the failure of the vineyards from phylloxera, an imitation of claret is made there by steeping raisins and currants in water, and mixing the compound with cheap Spanish wine. In other districts of France, a spurious brandy is made from a mixture of beet-root and cheap German spirit. This is a curious commentary on the belief held not long since that Pasteur had saved the wine industry of France from the ravages of the phylloxera.

Cocaine-Lanoline.

Mr. C. J. Boyd Wallis, L.D.S., has pointed out the value of lanoline as a medium for the application of cocaine for dental purposes, and communicates the following formula to the *Journal of the British Dental Association:*

Cocaine hydrochlorate	Parts	5
Acid carbolic (pure)	"	5
Menthol	"	5
Eugenol	"	10
Lanoline	"	75
		100

The cocaine and menthol should be well triturated with the eugenol, the carbolic acid then added, and the trituration repeated; the whole may then be added to the lanoline and thoroughly well mixed. Double this strength may be employed for sensitive dentine.—*Chemist and Druggist*, July 7, 1888.

Care of the Weak-Minded.

At the sessions of the National Conference of Charities and Corrections, in Buffalo, New York, July 7, 1888, a paper was read by Dr. Isaac M. Kerlin, of the Pennsylvania State Asylum at Elwyn. He favored placing all weak-minded children of school age and women of child-bearing age in the asylums, where they could be mentally improved. The children, he said, could be made self-supporting in the industrial departments, while others received benefits from its custodial treatment.

Clinical Features of the Uric Acid Headache.

Haig, in *St. Bartholomew's Hospital Reports*, vol. xxiii, p. 201, defines this as a headache which recurs at intervals of three days to a week, or from that to one or several months, throughout a large number of years in the life of an individual. It lasts from twelve to twenty-four hours and then goes completely away until the end of the interval. The attacks are rendered less frequent and less severe by a diet poor in nitrogen. There is often a family history of headache or of gout, or both. The author has frequently found this headache associated with a large excretion of uric acid, and has noted that the administration of an acid will stop the excessive excretion of uric acid and remove the headache in one or one and a half hours. He reports several cases in full, together with a tabular arrangement of the principal features of interest. The headache is probably caused by the action of some poison in the blood (uric acid) on a nervous (vaso-motor) system especially sensitive in some parts of the cranial circulation. Strychnine is sometimes very useful in this headache, on account of its tonic action on the vaso-motor centre. Symptoms of gastro-intestinal derangement are notable by their absence. The tongue is clean, the bowels regular, food is well taken, the pulse is slow, and the temperature normal. This is in marked contrast to the frontal headache, furred tongue, fever, rapid pulse, and disgust of food, of real gastro-intestinal derangement. The sulpho-cyanide is usually in excess in these headaches occurring in gouty or rheumatic families, as Fenwick has remarked. The author then lays stress upon the alliance between these headaches and epilepsy, as illustrated by one of his cases, in which the two affections appeared to improve together under a proper diet.—*American Journal of the Medical Sciences*, July, 1888.

Glass Balls for Refilling Wine-Casks.

Wines which contain less than about fifteen per cent. of alcohol cannot be kept in casks, unless the latter are kept full and protected from the air. When a portion of the contents of a cask is withdrawn, the vintner fills it up again from reserved stock until the particular brand gives out. He then used to, and still does, resort to the practice of putting pebbles into the cask to occupy the volume of the displaced wine; but, even with the best of care, some ferruginous or otherwise impure pebbles are apt to get in, which may injure the flavor of the wine. For this reason, glass balls are now being used by many in place of the pebbles.—*American Druggist*, July, 1888.

Formula for Antifebrine.

Dr. I. N. Love (*Weekly Medical Review*, July 7, 1888) says that the following formula is a pleasant and convenient form of administering antifebrine:

℞ Antifebrine . . . . . ℈ij
Alcohol . . . . . f℥ij
Glycerine . . . . . f℥iij
Cinnamon water . . . . . f℥j
Simple syrup . . . . . f℥iij

M. Sig. One-half teaspoonful to two teaspoonfuls every two to four hours, according to age and necessities.

Examinations for Appointment in the Medical Corps of the U. S. Army.

An Army Medical Board will be convened in New York City, New York, October 1, 1888, for the examination of such persons as may be properly invited to present themselves before it as candidates for appointment in the Medical Corps of the Army.

Application for an invitation should be addressed to the Secretary of War, stating date and place of birth, place and State of permanent residence, and accompanied by certificates, based on personal acquaintance, from at least two persons of repute as to citizenship, character, and moral habits; testimonials as to professional standing, from the professors of the medical college from which the applicant graduated, are also desirable. The candidate must be between 21 and 28 years of age, and a graduate from a regular medical college, evidence of which—his diploma—must be submitted to the Board.

Further information regarding the examinations and their nature may be obtained by addressing the Surgeon General, U. S. Army, Washington, D. C.

NEWS.

—Dr. L. D. Tousely, 68 years old, died in Philadelphia, August 6, 1888.

—Professor Fritsch, of Breslau, has declined the invitation to go to the University of Würzburg.

—The foundation-stone of the new French Hospital in London was laid by the French Embassador July 21.

—Typhoid fever of a malignant type is said to be prevalent in the neighborhood of Wachapreague, Accomac County, Va.

—There were five deaths in Philadelphia from small-pox for the week ending August 4, and thirty-five from typhoid fever in the same period.

—Dr. Davis, of Whitwell's private asylum, says the *Canadian Practitioner*, August, 1888, reports the case of a woman sane only during pregnancy.

—An outbreak of typhoid fever has occurred in the Carmelite Convent at Hochelamea, near Montreal. All postulants who have not yet taken the habit were sent home.

—Dr. Bramann, of Berlin, whose name has become familiar to American readers through his connection with the late Emperor of Germany, has been recognized as *privat docent* in surgery.

—Dr. P. J. Higgins, of Wilkesbarre, Pa., declined to testify in an inquest before the coroner, unless his fee as medical expert was paid in advance. He was compelled by the coroner to give bonds in $500 to answer at court.

—Mr. Ridley, surgeon to Tullamore Gaol, committed suicide recently by cutting his throat with a razor. Since the death of Mr. Mandeville, the Member of Parliament who was confined in the gaol, Mr. Ridley is said to have been in a state of mental depression.

—Dr. Ludwid Julius Budge, Professor of Anatomy and Physiology in the University of Greifswald, has just died at the age of 77. His special studies have been on the nervous system. He demonstrated the origin of the sympathetic from the spinal cord. He also demonstrated the origin of the bile capillaries in the liver.

—At the semi-annual meeting of the Provincial Medical Board of the Province of Quebec, at Montreal, May 9, 1888 (*Canada Medical Record*, June, 1888), the examiners reported that forty-six candidates had passed. Thirty-two were rejected

upon certain subjects, and nine were totally rejected on all subjects.

Reports from Manatee, Florida, state that there have been two cases of yellow fever in forty-eight hours (ending August 6), but no deaths. Twenty possible cases have been sent to Pine Woods. Dr. Guitéras has declared that the suspicious case at Sandford, Florida, is not yellow fever. There are no new cases of yellow fever at Tampa, but there is one at Plant City.

—Dr. Henry Leffmann has been elected Lecturer on Chemistry at the Woman's Medical College of Pennsylvania, Philadelphia. The object of the Corporators in not electing Dr. Leffmann professor is said to be their desire to leave the chair vacant until it can be ascertained whether or not a qualified woman, who is also a graduate in medicine, can be obtained for the position.

—An employé in a planing-mill at Wellsville, Ohio, recently met with a peculiarly painful death while at work. He was standing in front of a "planer," when one of the "bits," a sharp piece of steel, three inches wide and four inches long, suddenly flew out of its place, striking him with great force in the abdomen and inflicting a terrible wound. The unfortunate man died almost instantly.

HUMOR.

AN ANTHROPOLOGICAL CURIOSITY.—A double scull race.

WHEN A THIN MAN visits you, lodge him in the spare room, of course.—*Life.*

"I DON'T see why they call it vase*line*," said Bjones. "It's more like fat."—*Harper's Bazar.*

"HOW IS THAT BUTTER I sent you?" asked a Warwick grocer of a transient customer. "Better, thanks—gains strength every day."

IT IS REPORTED that the dentists are taking the stump for revenue only all over the country. Politicians will have no patients with this sort of thing.—*Phila. Ledger.*

MENTOR—Our idea of a strong-minded person would be one who can read the advertisement of a patented specific medicine, and yet not have the disease.—*Lowell Citizen.*

A WOMAN IN SALISBURY, Eng., has been sent to prison for two years just for managing a farm. It was a baby farm, and there is no protection for infant industries under the British system.—*Ledger.*

TEACHER: "Children, there is something within you that tells you when you have done wrong. What is it?" Small boy (gorged with green apples): "I know, sir. It's the colic."—*Detroit Free Press.*

"WHY," SAID THE YOUNG WIFE of a physician, who was given to boasting of her husband's professional skill, "he cured a patient of convalescence in less than twenty-four hours!"—*The Telegram.*

WHEN THEY TALKED about "the nine" in Athens, it was the nine Muses. To-day, all over this country, "the nine" refers to base-ball, excepting through the Middle and Western States, where it is understood to mean quinine.—*San Francisco Examiner.*

WIFE—"John, dear, what would you do if I were to die?" Husband—"Don't speak of such a thing. I would be desperate." Wife—"Do you think you would marry again?" Husband—"Well, n–no; I don't think I would be as desperate as all that."—*Epoch.*

NAMES FOR TRIPLETS.—*Truth* (N. Y.) says this is the latest credited to W. S. Gilbert: A friend was bewailing in his company that his wife had just presented him with triplets, all girls. "What am I to do with them?" asked the poor man. "I don't even know what to name them." "Oh," said Mr. Gilbert, "call the first Kate, the second Duplicate, and the third Triplicate."

OBITUARY.

JACOB H. WEHNER, M.D.

Dr. Jacob H. Wehner, of Germantown, died July 31, after an illness of three weeks. He was born in Philadelphia, February 11, 1840, and was educated at Dickinson College, Carlisle. After his graduation, he entered the Pennsylvania Medical College and received the degree of M.D. in 1861. He also attended lectures at the Jefferson College and the Medical Department of the University of Pennsylvania, and was for a time one of the Demonstrators at the latter institution.

During the late war, he was appointed Assistant Surgeon in the regular army, and for fourteen months was stationed at New Orleans. He was twice wounded on the battlefield while in the performance of his professional duties.

Dr. Wehner was a great friend to young physicians and assisted many of them into successful practice.

He leaves a wife and five children.